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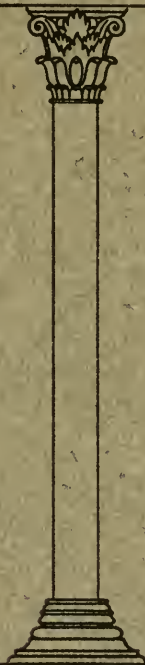
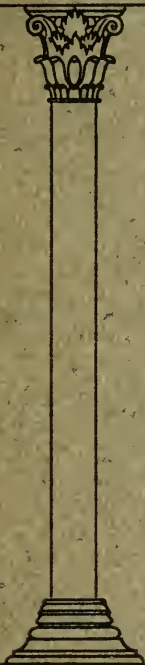
1911

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**PLANS**  
**FOR**  
**PUBLIC SCHOOLHOUSES**  
**WITH**  
**EXPLANATIONS, SPECIFICATIONS**  
**BILLS OF MATERIAL**  
**ESTIMATES OF COST**



**ISSUED FROM OFFICE OF THE**  
**STATE SUPERINTENDENT OF PUBLIC INSTRUCTION**  
**RALEIGH, NORTH CAROLINA**





# PLANS

FOR

# PUBLIC SCHOOLHOUSES

APPROVED BY THE

STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

WITH

EXPLANATIONS, SPECIFICATIONS,

BILLS OF MATERIAL,

ESTIMATES OF COST.

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*North Carolina*  
ISSUED FROM OFFICE OF

STATE SUPERINTENDENT OF PUBLIC INSTRUCTION,

RALEIGH, N. C.

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RALEIGH:

E. M. UZZELL & Co., STATE PRINTERS AND BINDERS.  
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U. W. F. D.  
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## PREFACE.

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To suggest better plans for schoolhouses, to prevent waste of money on improperly constructed houses, when properly constructed houses can be erected in many cases at the same or slightly increased cost, to make it easy and inexpensive for school officers to secure these better plans, I have had prepared by Messrs. Barrett & Thomson, well-known architects, the subjoined revised, enlarged and improved plans for one, two, three, four, and six-room schoolhouses. The first pamphlet of plans for schoolhouses was issued in 1903. This pamphlet contains changes and improvements suggested by eight years' experience. Accompanying the plans will be found blank detachable contracts, full printed specifications, and carefully prepared bills of material for each house, together with cuts and floor plans of the same. If larger working plans for these buildings are desired, blueprints can be procured at small cost from Messrs. Barrett & Thomson, Raleigh, N. C.

In this revised edition will be found also plans for dormitory buildings suitable for rural high schools and farm-life schools, also plans for sanitary toilets.

These plans have been prepared in accordance with modern principles of ventilation, light and sanitation. Full explanations of each plan by the architects will be found in this pamphlet. It will be seen that some of the plans have been so arranged that larger houses can be evolved from the one-room house if the enlargement of the district or increased population and attendance should later require the enlargement of the schoolhouse. (See under Cost, last page.) Any number of these pamphlets can be procured, free of cost, by application to the State Superintendent.

Very truly,

J. Y. JOYNER,

*Superintendent of Public Instruction.*

RALEIGH, N. C., January, 1911.

**ALL HOUSES MUST BE BUILT IN ACCORDANCE WITH PLANS  
APPROVED BY STATE SUPERINTENDENT OF PUBLIC IN-  
STRUCTION.**

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(SCHOOL LAW, SECTION 4124.)

SCHOOLHOUSES, BUILDING AND APPROVAL OF; CONTRACTS FOR. The building of all new schoolhouses shall be under the control and direction of and by contract with the County Board of Education. The board shall pay not exceeding one-half of the cost of the same out of the fund set aside for building under section four thousand one hundred and sixteen, and the school district in which any schoolhouse is erected shall pay the other part, and upon failure of such district to provide its part by private subscription or otherwise the board is directed to take it out of the apportionment to that district. But the board shall not be authorized to invest any money in any new house that is not built in accordance with plans approved by the State Superintendent of Public Instruction. All contracts for buildings shall be in writing and all buildings shall be inspected, received and approved by the County Superintendent of Public Instruction before full payment is made therefor.



# PLANS FOR PUBLIC SCHOOLHOUSES

WITH EXPLANATIONS, SPECIFICATIONS, BILLS OF  
MATERIAL AND ESTIMATES OF COST.

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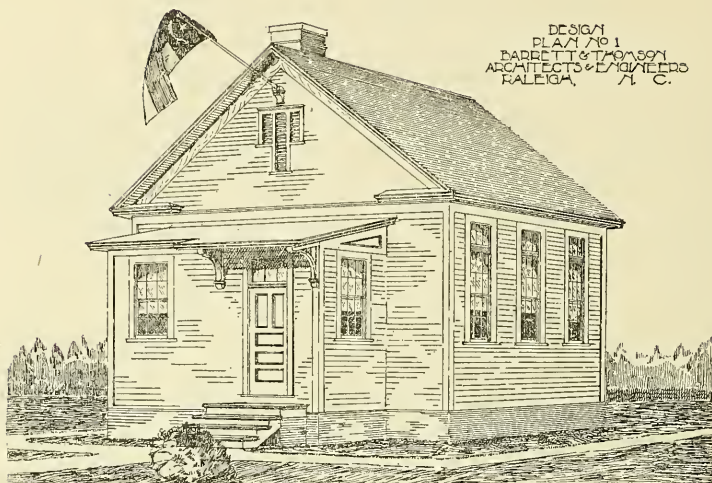
It is not economy, but, instead, impractical and unbusiness-like, to build cheap, unsanitary schoolhouses, in which the children are not surrounded by the very best conditions of health.

The building should be substantially and warmly built, with solid brick foundation, double walls and floors. Without warm floors, feet are sure to be cold, and this keeps the children from studying and progressing as they should.

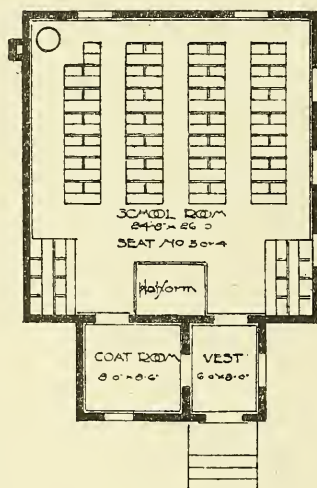
For the smaller buildings brick piers may be used, and the space between same tightly boarded up with tongued and grooved flooring or ceiling. The extra cost of the materials required for the solid brick walls, double walls and floors, above the cost of piers and single walls and floors, will be more than offset by the saving in fuel and the increased comfort to the pupils.

All schoolrooms should be well lighted, heated, and ventilated. When the room is bright and attractive and the air pure, the pupils are always bright and attentive, and the teachers can do better work. With a poorly lighted room and bad air, the pupils are dull, inattentive, and irritable.

Each building should be provided with an entrance vestibule, or hall, as a protection against cold draughts in the schoolrooms. The schoolrooms should each have an ample coat-room, with a door from vestibule, or hall, and also one from the schoolroom, so that the teacher can have perfect control over the room at all times. It would be hard to imagine a more unsanitary condition in a schoolroom than would be caused by the steam and gases arising from the drying of a lot of damp and not always cleanly outer garments. This should be avoided by placing all coats and wraps in the separate coat-rooms.



DESIGN No. 1.



PLAN NO 1  
DABRETT & THOMSON  
ARCHITECTS & ENGINEERS  
RALEIGH, N. C.

PLAN No. 1.

A lunch closet, with lock and key, should be provided in each coat-room.

The accompanying plans have been prepared especially to meet the growing demand for better and more attractive school buildings for the country districts of the State of North Carolina.

#### SITE FOR A SCHOOL BUILDING.

The selection of the site for the school building has much to do with the hygienic condition of the school.

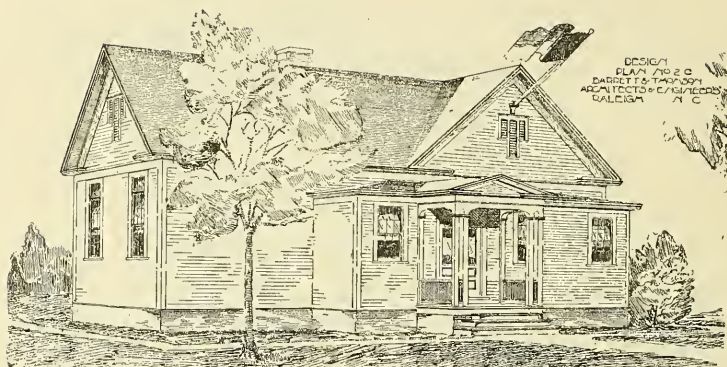
If possible, the location should be high and dry. Marshes or springy land should not be used. Dampness is calculated to foster such diseases as diphtheria, typhoid fever, consumption, and rheumatism. Breathing a damp atmosphere will often cause langour and headache.

The site should be as naturally attractive as can be found without going outside of the prescribed limits.

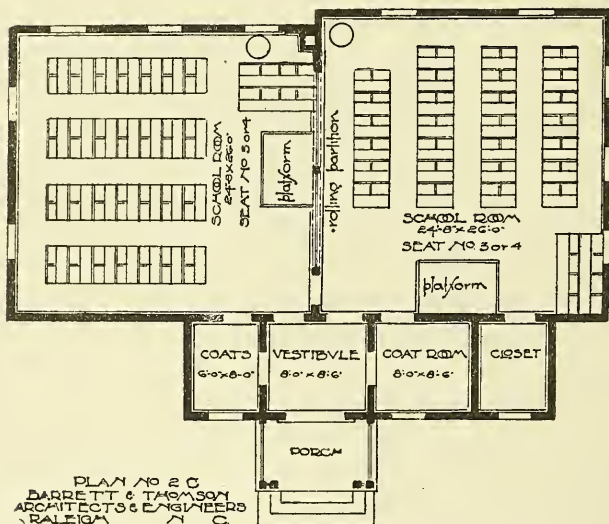
The school building should, if possible, be located on or near our public highways, where the school building can be seen by the passers-by. When its doors are closed, and the voices of the children are not heard, the building itself will stand as a silent sentinel for the cause of public education.

The earth taken from the excavation for foundation should be graded under and around the building in such manner as to carry the surface water away from the walls. The size of the building will be governed by the present or probable needs of the district in which it is to be built.

Where a one-room building will answer for present needs, build the one-room schoolhouse, plan No. 1 of the accompanying designs. When more room is required, a second room can be added, which will give the two-room building, plan No. 2 C. When still further enlargement is found necessary, a third room and tower can be added to plan No. 2 C, giving the arrangement shown by plan and design No. 3. Where a more ornamental one-room building is required, build room A, plan No. 2, and tower. Room B can be added at any time,



DESIGN No. 2 C.



PLAN No. 2 C.

giving the complete two-room building shown by plan and design No. 2. A third room can later be added, giving a three-room building similar in plan to No. 3. Only a slight change in the construction will be required in making the additions above mentioned, and very little material lost.

Plans and designs No. 2 A and No. 2 B show two-room buildings, of different arrangement and appearance, which should be built complete.

Plans and designs numbered 3 A, 3 B, and 3 C give a choice in three-room buildings, both in arrangement and appearance. A very attractive building has been made by building a gable over the front center projection, plan No. 3 C, in place of the hipped roof shown, and using the tower shown with designs Nos. 2 and 3.

Plan and design No. 4 show a compact four-room building, with classrooms all on one floor. Plan and design No. 5 show the same number of classrooms on two floors.

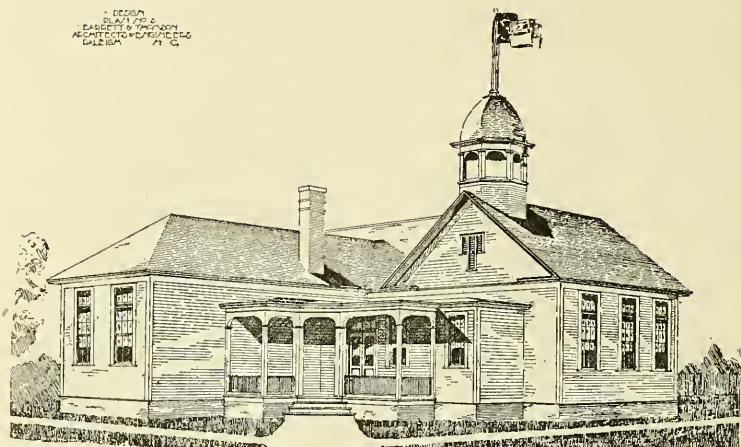
Plan and design No. 6 show a two-story, six-room building, with classrooms on two floors.

Plan and design No. 6 A show a building with three classrooms on the first floor and an auditorium and library on the second floor; when additional room is required an extra classroom can be added on the rear, as indicated by dotted lines.

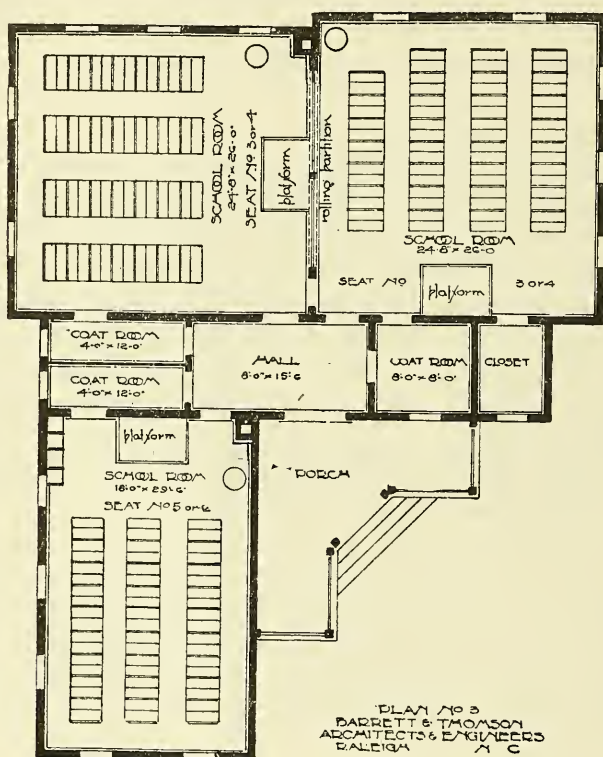
Plans and design No. 7 show a girls' dormitory for county high schools. The first floor, in addition to bedrooms for girls, contains a dining-room to accommodate the twenty occupants of the building and an equal number of boys which will be provided for in separate buildings; a kitchen, a storage and serving room and a cooking laboratory. The second floor contains double and single bedrooms for girls.

The cooking laboratory shows an arrangement of equipment suggested by the best authorities. The tables are placed around three sides of a square with an open space in the center for the teacher and the necessary worktable. The teacher's desk, range, sink, and cupboards are conveniently located on the outside walls of the room.





DESIGN NO. 3.



PLAN NO. 3.

It is recommended that Domestic Science equipment especially manufactured for this work be provided in the same manner that modern school equipment would be provided in classrooms.

Plans and design No. 8 show a one-story two-room dormitory to accommodate four boys, two boys in each room. One or more buildings can be erected as the growth of the institution may demand.

#### COST OF BUILDING.

The cost of the buildings illustrated will vary greatly, owing to the difference in the price of labor and materials in different sections of the State, the distance materials will have to be hauled, and the ability of the contractors bidding to handle the work economically. They will cost no more than poorly arranged buildings of the same size and construction.

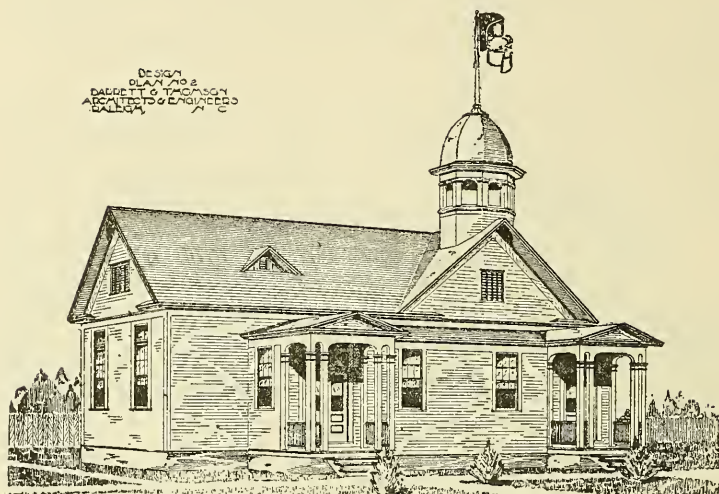
In comparing contract prices with the cost of buildings already erected, it will be well to examine carefully the specifications and working drawings, and note the materials and construction called for.

The two-story buildings will cost less than the one-story buildings with the same number of rooms.

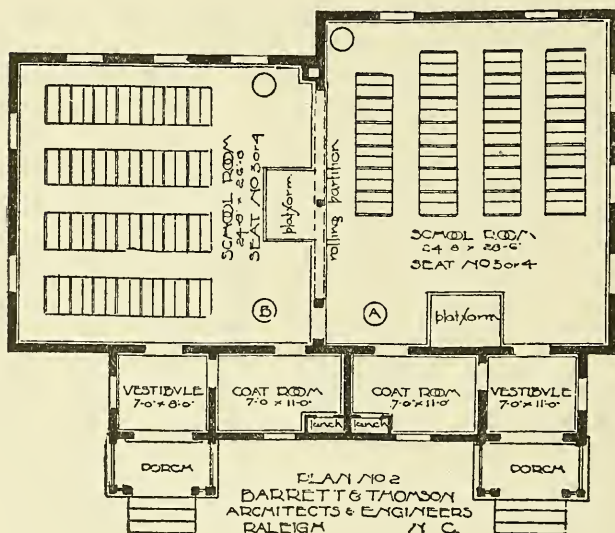
The classrooms shown are planned to use standard school desks of the following dimensions:

	No. or Size of Desk.	Height of Seat from Floor.	Width of Top.	Height of Top of Desk from Floor.	Distance of Desks Apart, Measuring from Back to Back.	Length Single.	Length Dbl. and Dbl. Sep.	Age of Pupil Occupying Seat.
		INCH.	INCH.	INCH.	INCH.	INCH.	INCH.	
Normal.....	1	17	15	30	28	24	40	16 to 21
High School.....	2	16	15	28	28	24	40	14 to 18
Grammar.....	3	15	13	26	25	21	38	11 to 15
1st Intermediate.....	4	13 $\frac{1}{2}$	13	24	25	21	38	9 to 13
2d Intermediate.....	5	12 $\frac{1}{2}$	11	23	22	18	36	7 to 10
Primary.....	6	11	11	22	22	18	36	5 to 8

The approximate number and location and the size desk to be used in each classroom is marked on floor plans.



DESIGN No. 2.



PLAN No. 2.

The ceilings in schoolrooms should be at least 13 feet clear between the ceiling and finished floor. This will give approximately 200 cubic feet of air and 15 feet of floor space to each pupil.

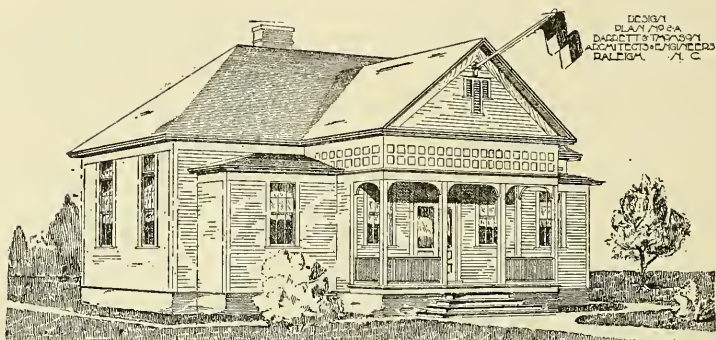
The light, according to the best authorities, should come from the rear and left side, or left side of the pupil only, and the glass surface should equal from one-sixth to one-fifth of the floor area of the room.

The windows should be set 3 or  $3\frac{1}{2}$  feet above the floor, and the window head should come within 12 inches of the ceiling. The schoolroom windows should have a 24-inch transom sash, hinged at the bottom, to swing in. In opening a transom hinged in this manner the outside air is deflected upward against the ceiling and distributed uniformly through the room, instead of striking the children in a solid stream, as when an ordinary window is opened. The sash below the transom bar should be hung with cord and weights.

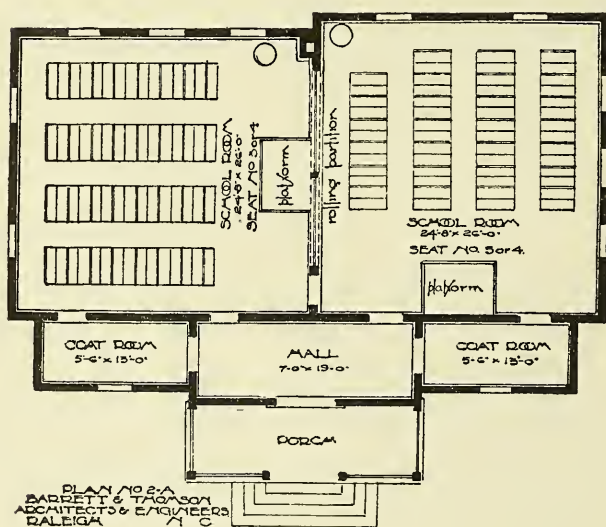
The blank walls on one or more sides of the schoolrooms should be fitted with slate or good composition blackboards, with chalk trough at base. The boards should be from 3 to  $4\frac{1}{2}$  feet high, and set from 2 feet 1 inch to 2 feet 4 inches above floor for primary pupils, and 2 feet 6 inches above floor for intermediate pupils.

#### HEATING AND VENTILATION.

In February, 1910, at my request; as will appear from the following letter, the Secretary of the State Board of Health and the architects, after examination of various systems of heating and ventilation, recommended the Waterbury system, which we include in this pamphlet. Under a special contract with the Waterman-Waterbury Company, this system of heating can be purchased for \$65. A special pamphlet containing full description and information about this system may be obtained upon application to the Waterman-Waterbury Company, Buffalo, N. Y., or Mr. C. J. Parker, Raleigh, N. C.



DESIGN NO. 2 A.



PLAN NO. 2 A.



The following report speaks for itself:

### REPORT OF COMMITTEE.

RALEIGH, N. C., February 21, 1910.

HON. J. Y. JOYNER,

*State Superintendent of Public Instruction,*

*Raleigh, N. C.*

DEAR SIR:—At your request we have carefully examined several systems of heating and ventilation for the purpose of ascertaining, as best we could, the system that in our opinion would be most satisfactory and best adapted in all respects for the public schools of this State, and especially for use in the schoolhouses built in accordance with the State plans.

We have examined and applied the scientific tests to plants installed in schoolrooms by the two systems that we considered, after investigation, the best, one of which was the Waterbury System, manufactured by the Waterman-Waterbury Company. We recommend this system as the best that we have been able to find for the public schools of this State, after careful examination into the merits of various systems, and after these personal examinations and tests of the best systems in the country.

We are satisfied that the adoption and installation of this system of heating and ventilation in the schools of the State will greatly contribute to the comfort, the health, the discipline, and the intellectual activity of the children.

Very truly yours,

W. S. RANKIN,

*Secretary State Board of Health.*

FRANK K. THOMSON,

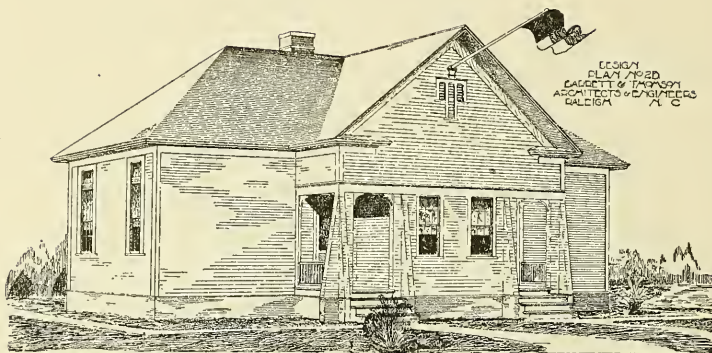
CHAS. W. BARRETT,

*Architects for State School Plans.*

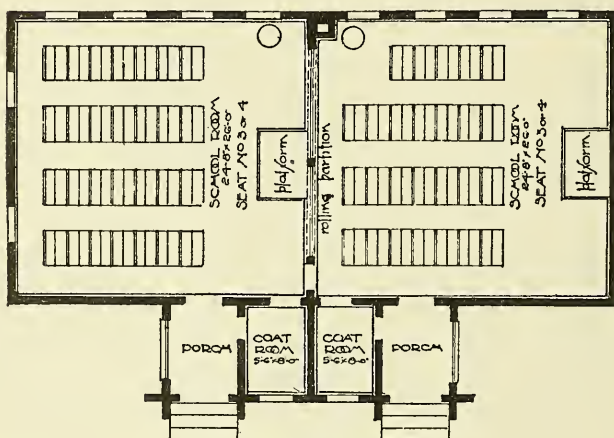
(Illustrations of this heater are found elsewhere in this book.)

### DESCRIPTION OF WATERBURY SYSTEM.

The Waterbury System consists of a small furnace surrounded by a heat-proof casing with one flue measuring 12 x 12 inches, inside measurement, which serves for carrying off both the smoke and the foul air. The casing consists of four layers of material. A special process electroplating steel is used for the outside. Deeply corrugated bright tin with continuous air spaces extending from top to bottom form the powerful heat-reflecting inner walls. The double metal walls with double layers of asbestos and air spaces between make the casing as nearly heat-proof as possible.



DESIGN No. 2 B.



PLAN NO. 2-B  
 BARRETT & THOMSON  
 ARCHITECTS & ENGINEERS  
 RALEIGH N. C.

PLAN No. 2 B.

The furnace is placed in the corner of the room out of the way and about 15 inches from an outside wall. A fresh-air duct leads directly from the hottest part of the furnace through the casing and through an opening in the wall of the building. Thus the fresh air has direct access to the hottest part of the furnace.

The chimney should be built about 10 feet from the corner in which the plant is to be placed and should have a single flue measuring 12 x 12 inches (inside) and extending to the floor. A register which is furnished with the plant should be placed in the face of the chimney at the floor line for carrying out the foul air. (See illustrations in this pamphlet.)

#### THE OPERATION OF THE SYSTEM.

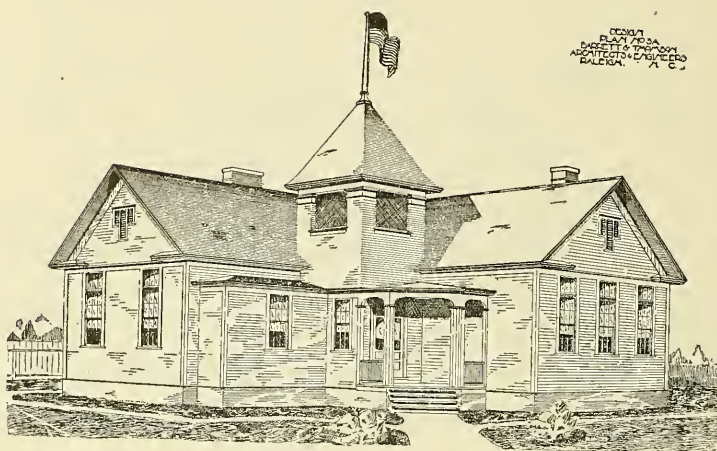
When a fire is started in the furnace the air within the casing becomes heated, and as it is much lighter than the other air in the room, it rises to the ceiling and spreads out over the entire room.

To replace the air that has just arisen from the casing, a large volume of fresh air rushes in through the large pipe leading from outdoors into the casing. This air is deflected upward and around furnace by means of a patented intake.

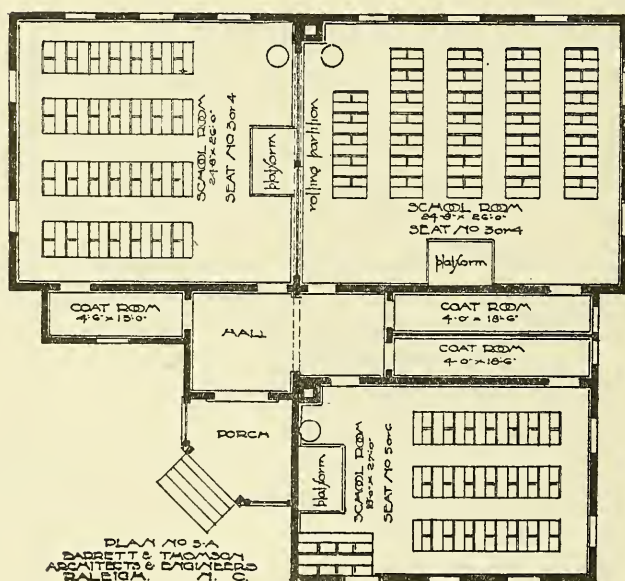
As the casing is practically heat-proof, the air within it is very quickly and thoroughly heated, and the foregoing process continues. As the air at the ceiling gradually cools it settles toward the floor, carrying the foul air with it. The foul air is drawn off through the ventilating register into the chimney, where the patented chimney attachment prevents its acting as a check on the furnace draft.

The remainder of the cold air is drawn up into casing, heated and recirculated. The warmer fresh air from above settles down to take its place. This process continues as long as the fire is kept in the furnace.

As a result of this action a uniform temperature is maintained in all parts of the room, and the floors are kept warm.



DESIGN NO. 3 A.



PLAN NO. 3 A,

All pupils in the room, whether near or far from the furnace, receive the same amount of heat.

A constant supply of fresh air from out of doors is provided for both teacher and pupils, and the foul air is expelled from the room without any draughts. The air in an ordinary schoolroom is changed about once in every ten minutes.

The plant, being placed in a corner of the room, does not take up floor space that could be used for seats, and pupils can be seated within a few feet of it without discomfort.

By means of the circulation established the heat usually wasted in overheating the room near the ceiling and in immediate vicinity of stove is saved by bringing it in contact with colder corners and the floor, thus warming every part.

The apparatus complete is furnished as illustrated, including foul-air register, fresh-air intake and duct, chimney attachment, 10 feet of high-grade smoke pipe. All parts are made of high-grade material, and with ordinary care should last a "lifetime."

#### MATERIAL, DRAWINGS, ETC.

Following will be found a specification, with bill of material, for each building.

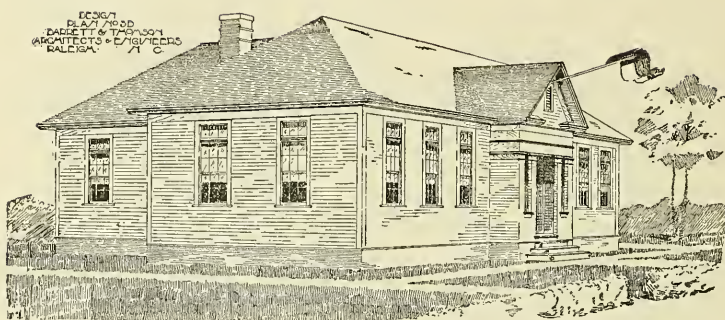
Complete working drawings, consisting of foundation plan, plan of each floor and roof, and four elevations, all drawn to one-quarter-inch scale, with full size and large scale detail drawings fully illustrating the work to be done, can be had by addressing the architects, Barrett & Thomson, Raleigh, N. C.

With the above-mentioned complete drawings, low bids can be secured from local contractors and the buildings erected without chance of mistakes and misunderstandings.

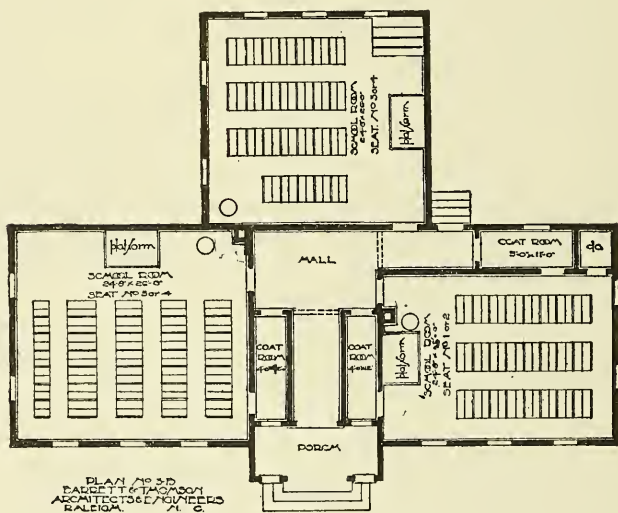
#### SPECIFICATIONS.

These specifications are intended to embrace all materials and labor necessary for the construction and completion.





DESIGN NO. 3 B.



PLAN NO. 3 B.

ready for occupancy, of a . . . . room frame school building for the . . . . . School, District of . . . . . County, . . . . ., North Carolina.

The drawings furnished consist of :

Floor plans.

Foundation and roof plans.

Four elevations and miscellaneous details.

All materials must be strictly as herein specified. All sizes and dimensions must be strictly adhered to, and the construction must be carried on in a workmanlike and substantial manner, to the entire satisfaction, approval, and acceptance of the County Superintendent and County Board of Education.

Upon completion of the work the contractor must remove all rubbish and surplus building materials from the premises, and thoroughly clean up the building.

The County Board of Education reserves the right to reject any workmanship or materials it may deem not in strict accordance with the plans and these specifications, and any such rejected materials must be replaced at the expense of the contractor.

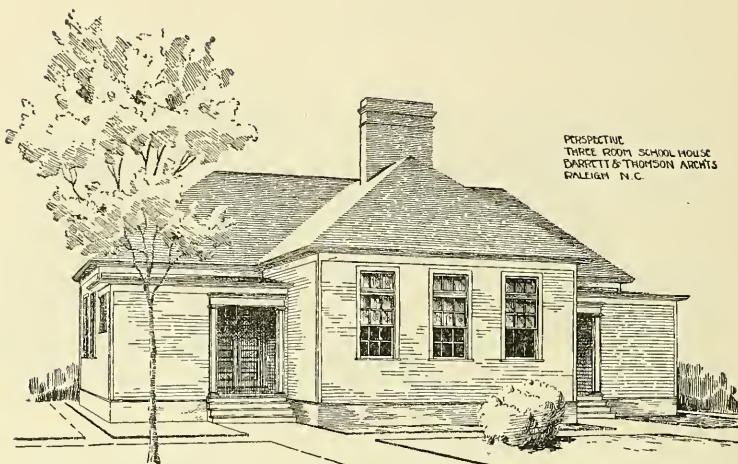
The contractor will assume all risks and bear any loss occasioned by neglect, accident, fire, or any other cause, until the building has been completed and accepted by the County Superintendent.

The County Board of Education reserves the right to make any additions or alterations at any time during the progress of the work, and if changes are made, the value of same shall be added to or deducted from the contract price.

All bids for the erection of this building shall be made with the understanding that the right is reserved by the County Board of Education to reject any or all bids, or to accept other than the lowest.

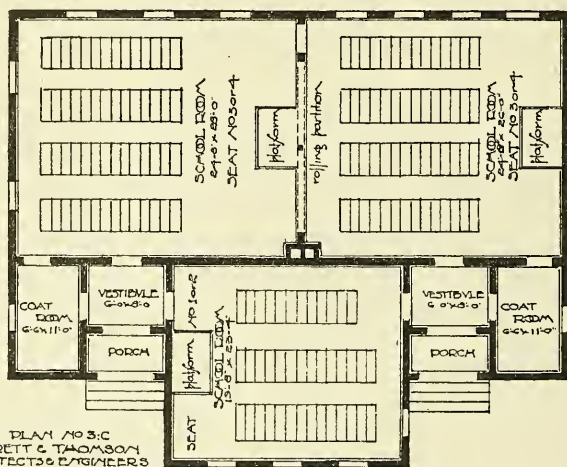
#### EXCAVATION.

Excavate for all walls, piers, and chimney butts to the depth shown on section, or to such depth as may be found necessary for satisfactory foundation. Fill in around walls and piers, and grade surplus earth around the building.



PERSPECTIVE  
THREE ROOM SCHOOL HOUSE  
BARRETT & THOMSON ARCHTS  
RALEIGH N. C.

DESIGN NO. 3 C.



PLAN NO. 3 C.  
BARRETT & THOMSON  
ARCHITECTS & ENGINEERS  
RALEIGH, N. C.

PLAN NO. 3 C.

## BRICKWORK.

Build foundation walls, piers, and chimney butts to the dimensions and carried to the heights shown on drawings, of strictly hard-burned brick, laid up in lime mortar, one part lime to three parts sand.

All walls, piers, and chimney butts to have footing courses stepped out on either side of walls, as shown on section. Lay all brick with flushed solid joints, plumb and to line, so that sills rest on walls and piers without blocking. Mortar joints on exposed work shall be neatly trowel-pointed. All brickwork to be properly bonded.

## CHIMNEYS AND VENT FLUES.

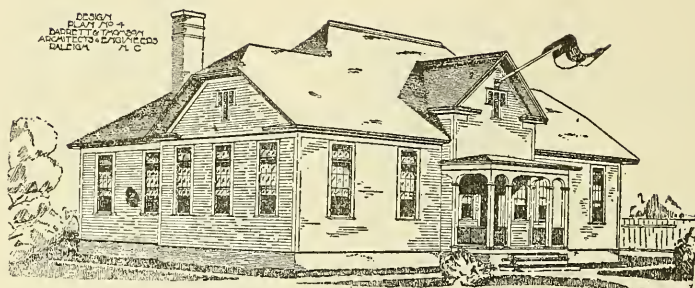
Build flues, in the positions shown, of hard-burned brick. Smoke flues shall be, for one room 12 x 12 inches, for two rooms 16 x 16 inches, inside measure, with opening for vent register at floor line,  $12\frac{1}{4} \times 14\frac{1}{4}$  inches. Carry up flues straight and full size for their entire height, carefully parge-coated on inside. Wythes between flues shall be 2 inches thick, properly bonded. Mortar to be same as specified for foundations.

## LATHING AND PLASTERING.

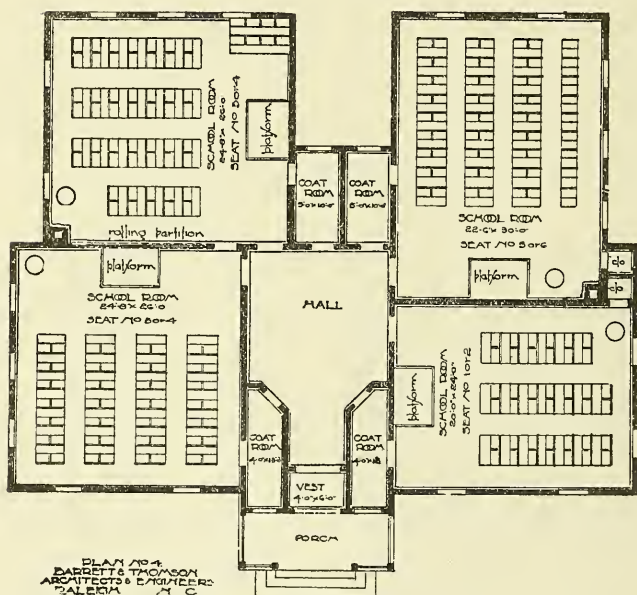
All laths for plastering must be No. 1 pine lath, laid  $\frac{3}{8}$  inch apart, breaking joints every 18 inches and over all openings. All angles must be made solid by the carpenter before lathing. Plaster the walls and ceilings, not otherwise specified, with two coats of mortar.

The rough mortar shall be made of lime putty, clean, sharp sand, and a sufficient quantity of best cattle or goat hair, well beat apart and thoroughly mixed. The brown coat shall be lime putty and clean, sharp sand, in proper proportions.

Finish all plastered walls and ceilings with a good sand finish of lime-putty plaster and white or light sand floated to true and even surface. Lime for plastering shall be run



DESIGN NO. 4.



PLAN NO. 4.



through a proper slaking box, strained and mixed for at least ten days before applying to walls. Hair shall not be added until mortar is ready for use. Lay all plastering in best manner, well up to grounds, with angles straight and true.

Plastering on outside walls shall extend to the floor, behind wainscoting and base. Do all patching after carpenters, and leave plastering whole and sound at the completion of the building.

#### CEILING.

The ceilings throughout, and the side walls and ceilings of all coat-rooms, shall be ceiled with 11-16 x  $3\frac{1}{4}$ -inch double-beaded ceiling, closely driven up and blind-nailed.

#### ROUGH AND DIMENSION TIMBERS.

All rough and dimension timbers shall grade No. 1 common and shall be cut from long-leaf or close-grained original-growth short-leaf pine.

Second-floor joists in two-story buildings, studding and walls plates in all buildings and truss timbers will be dimension timbers.

Sills and first-floor joists shall be heart timbers—sizes as follows:

Girders, 6 x 10 inches, on edge.

Sills, 6 x 10 inches, on edge.

First-floor joists, 2 x 10 and  $2\frac{1}{2}$  x 10.

Second-floor joists, 2 x 14.

Ceiling joists, 2 x 8.

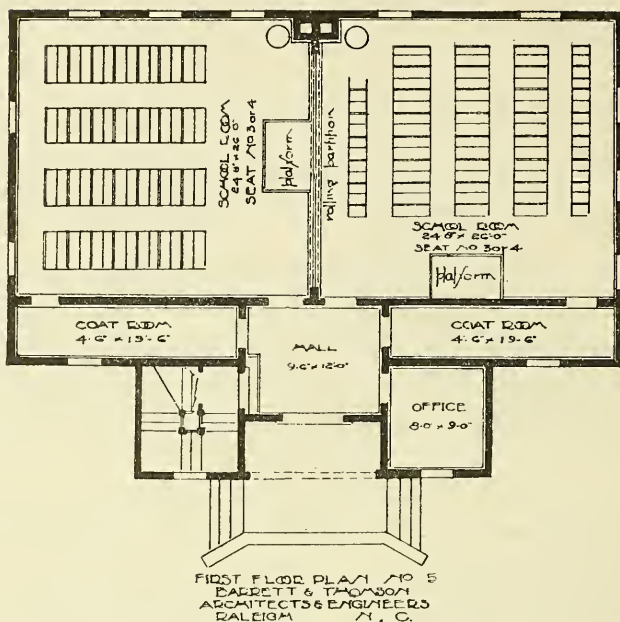
Studding, 2 x 6.

Floor joists and studding spaced 16 inches on centers. Ceiling joists, 24 inches on centers.

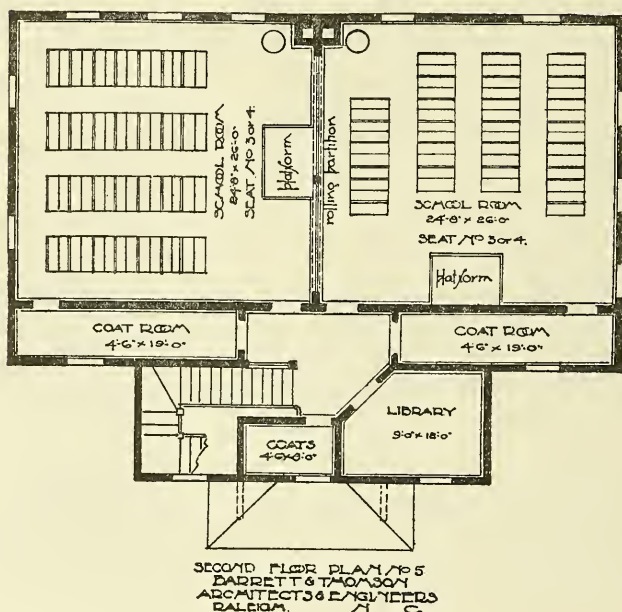
Rafters, 2 x 6, 2 feet on centers, with  $1\frac{1}{2}$  x 8-inch king post and  $1\frac{1}{2}$  x 6-inch strut on each full-length rafter.

#### FRAMING.

Joists shall be framed with crowning edge upwards, and bridged with 1 x 4-inch bridging. Studding shall be doubled at all openings. Plates shall be doubled and well spiked



FIRST FLOOR—PLAN No. 5.



SECOND FLOOR—PLAN No. 5.

together. The rafters and walls over rolling partitions shall be framed and trussed, as shown by detail drawings. Set partitions plumb and straight to form the various rooms.

#### GROUND.

Put up grounds  $\frac{7}{8}$  x 2 inches for the finish of all base. Casings, wainscoting, etc., grounds to be put up plumb and to line with angles, properly squared.



DESIGN No. 5.

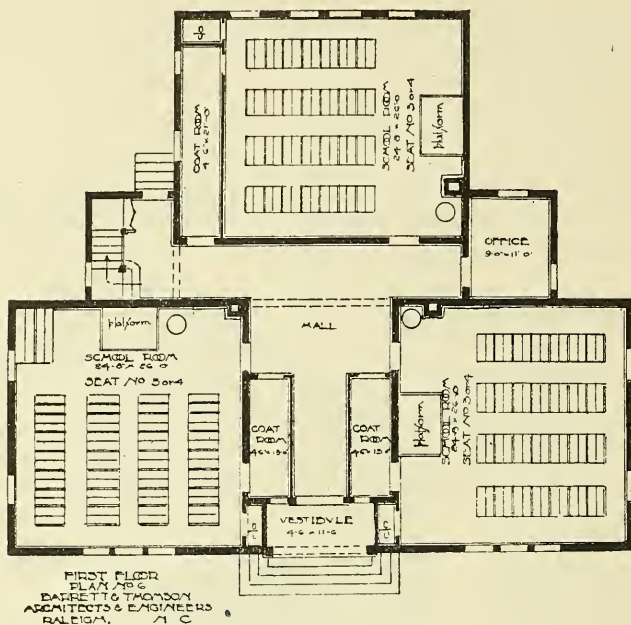
#### SHEATHING AND SUBFLOOR.

Sheathe the side walls from sill to plate, the gables and the floor joists throughout the building, with sound, surfaced sheathing  $\frac{7}{8}$ -inch by not over 10-inch widths. Sheathing to be put on diagonally of timbers, closely driven up and strongly face-nailed.

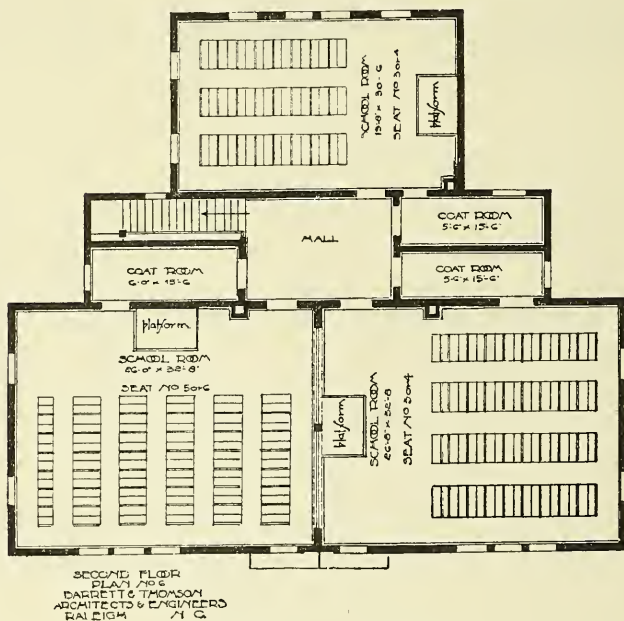
Build fresh-air inlet or duct, from outside wall to heater, of rough boards, with paper and battens over joints.

#### CORNICE.

Form all cornice of wood, as shown by detail drawings. Cornice to be run to perfect line, supported on suitable look-outs.



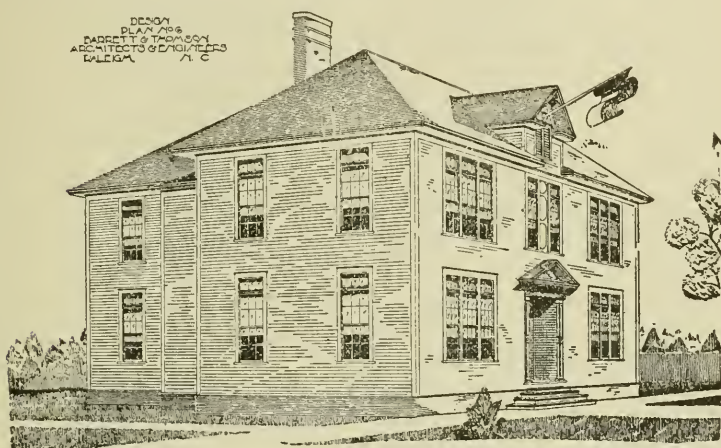
FIRST FLOOR—PLAN No. 6.



SECOND FLOOR—PLAN No. 6.

## ROOF.

All roof surfaces not otherwise specified or shown shall be covered with 4 x 18 clear heart pine shingles, laid  $5\frac{1}{2}$  inches to the weather. Lay shingles on  $\frac{7}{8}$  x 4-inch surfaced shingling strips, spaced 3 inches apart. Flat roofs and tower floors, where shown, shall be sheathed with  $\frac{7}{8}$  x 10-inch surfaced boards, closely driven up, and face-nailed and covered with flat-seam tin roof, out of high-grade stamped roofing plates, I. C. 14 x 20-inch sheets, carrying 30 pounds coating per box.



DESIGN No. 6.

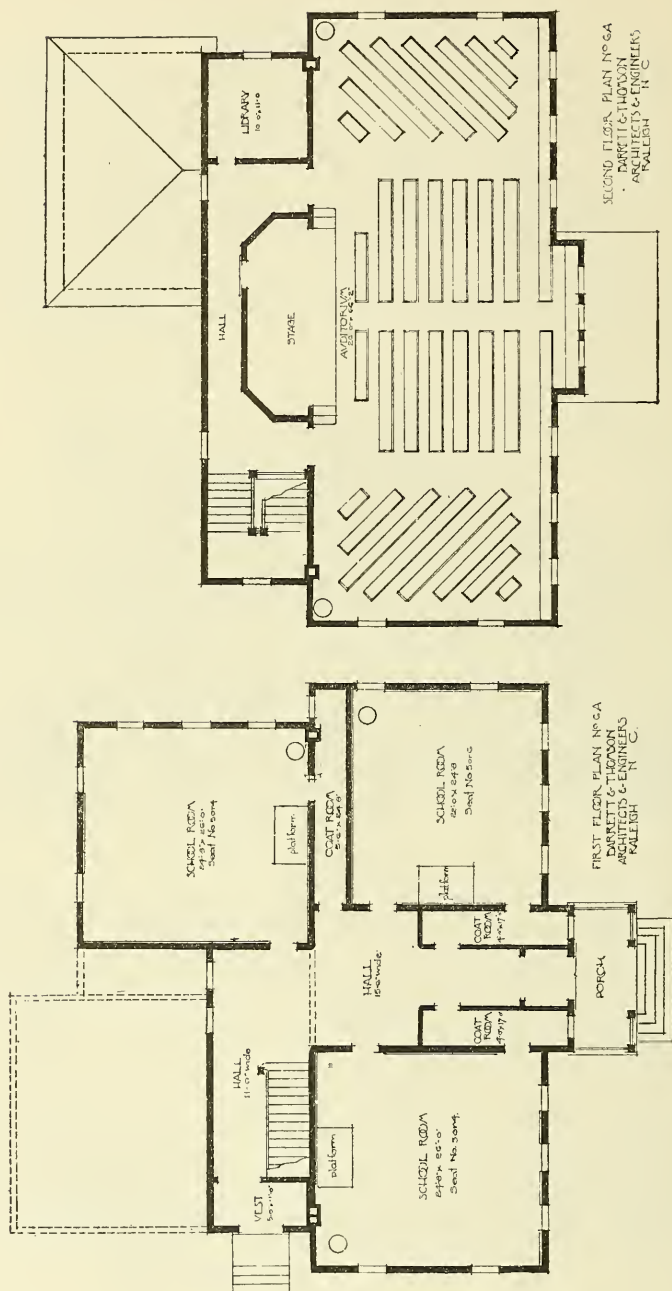
Lay valleys with same weight tin as specified for roofing, 14 inches wide. Flash against flues and where roof joins vertical walls with tin flashings, and leave secure from leaks.

All tin shall be painted one coat of graphite or iron oxide and linseed oil paint on underside before it is laid.

## GRADING FINISH.

All rough and dimension timbers, exterior and interior finish siding, flooring, etc., will be graded according to the classification, grading and dressing rules for yellow pine, as





SPECIAL PLAN FOR AUDITORIUM ON SECOND FLOOR.

adopted by the Yellow Pine Manufacturers' Association. Doors and sash will be graded according to the official grading adopted by the Yellow Pine Sash, Door and Blind Manufacturers' Association.

#### EXTERIOR FINISH.

All exterior finish shall be A-grade, thoroughly seasoned yellow pine.

#### WINDOWS AND DOOR FRAMES.

All windows shall have frames with  $\frac{7}{8}$ -inch pulley stiles, fitted with best 2-inch steel sash pulleys,  $1\frac{1}{4} \times 4\frac{1}{2}$ -inch outside casings,  $1\frac{3}{4}$ -inch sill and  $\frac{7}{8}$ -inch subsill,  $1\frac{3}{8}$  check-rail windows, hung with best quality braided sash cord to cast-iron weights of a size to properly balance sash.

Windows in schoolrooms shall have transoms. Set slat ventilators and sash for gables and dormers where shown. Door frames shall have  $1\frac{3}{8}$ -inch jambs, rebated to receive doors. Outside doors to have  $1\frac{1}{4} \times 4\frac{1}{2}$ -inch outside casing,  $1\frac{3}{4}$ -inch heart pine sills. Vestibule and schoolroom doors to have transoms. For size of windows and transoms, see floor plans.

#### SIDING AND BUILDING PAPER.

Cover the exterior walls of the building with A-grade bevel yellow pine siding  $5\frac{1}{2}$  inches wide, laid  $4\frac{1}{2}$  inches to the weather.

Lay under siding one thickness of waterproof building paper, "Neponset" black, made by F. W. Bird & Son, or equal.

#### PORCHES AND TOWER.

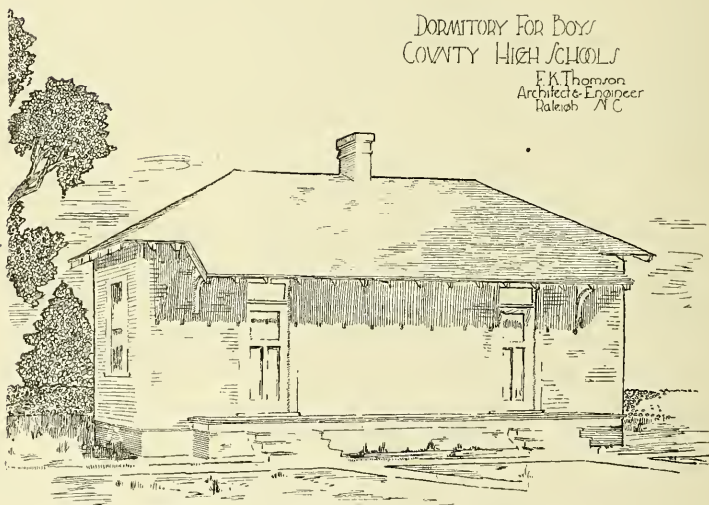
Furnish and set all columns, pilasters, railing, balusters, brackets, etc., etc., as shown on drawings. Porch floors shall

DORMITORY FOR GIRLS  
COUNTY HIGH SCHOOL  
F. K. Thomson  
Architect & Engineer  
Raleigh, N. C.



DORMITORY FOR GIRLS—COUNTY HIGH SCHOOL.

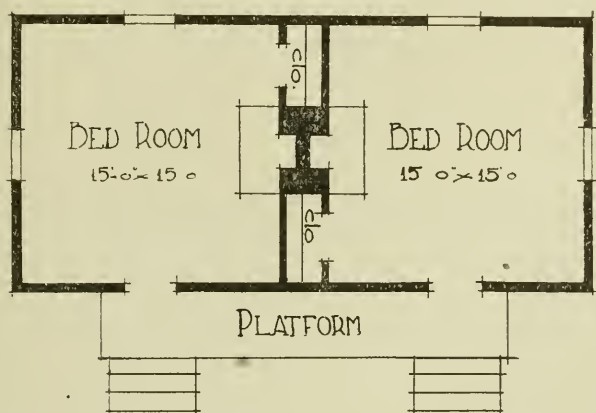
DORMITORY FOR BOYS  
COUNTY HIGH SCHOOLS  
F. K. Thomson  
Architect & Engineer  
Raleigh, N. C.



DORMITORY FOR BOYS—COUNTY HIGH SCHOOL.

be 5-4 x 3 $\frac{1}{4}$ -inch A-grade heart pine, laid in full lengths, closely driven up and blind-nailed. The porches shall be ceiled overhead with 11-16 x 3 $\frac{1}{4}$ -inch double-beaded ceiling, with  $\frac{7}{8}$ -inch quarter round, in angles.

The entrance steps shall be built of three 1 $\frac{1}{4}$  x 4 $\frac{1}{2}$ -inch heart pine strips, spaced  $\frac{1}{4}$  inch apart for treads,  $\frac{7}{8}$  x 7 $\frac{1}{2}$ -inch risers, supported on 2-inch heart pine carriages, spaced 2 feet on centers.



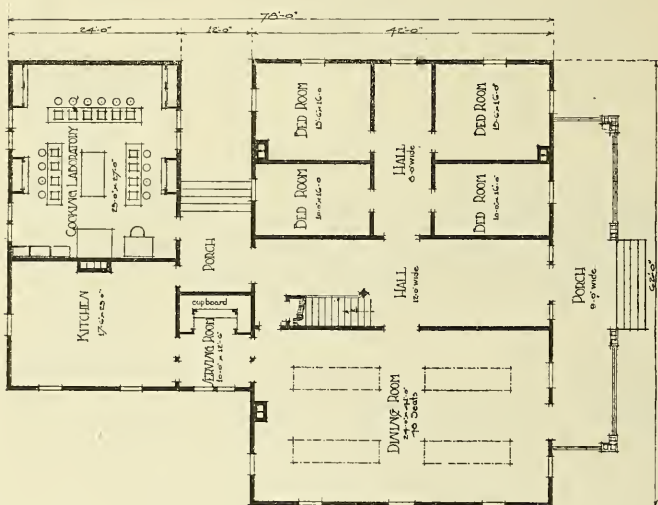
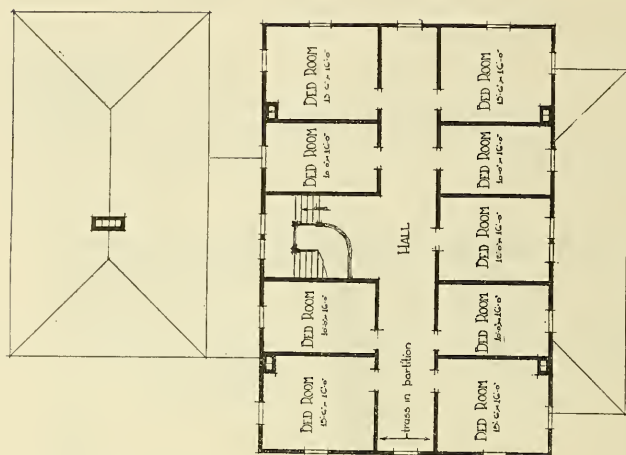
### FLOOR PLAN

DORMITORY FOR BOYS COUNTY HIGH SCHOOLS  
F K Thomson Architect & Engineer Raleigh NC

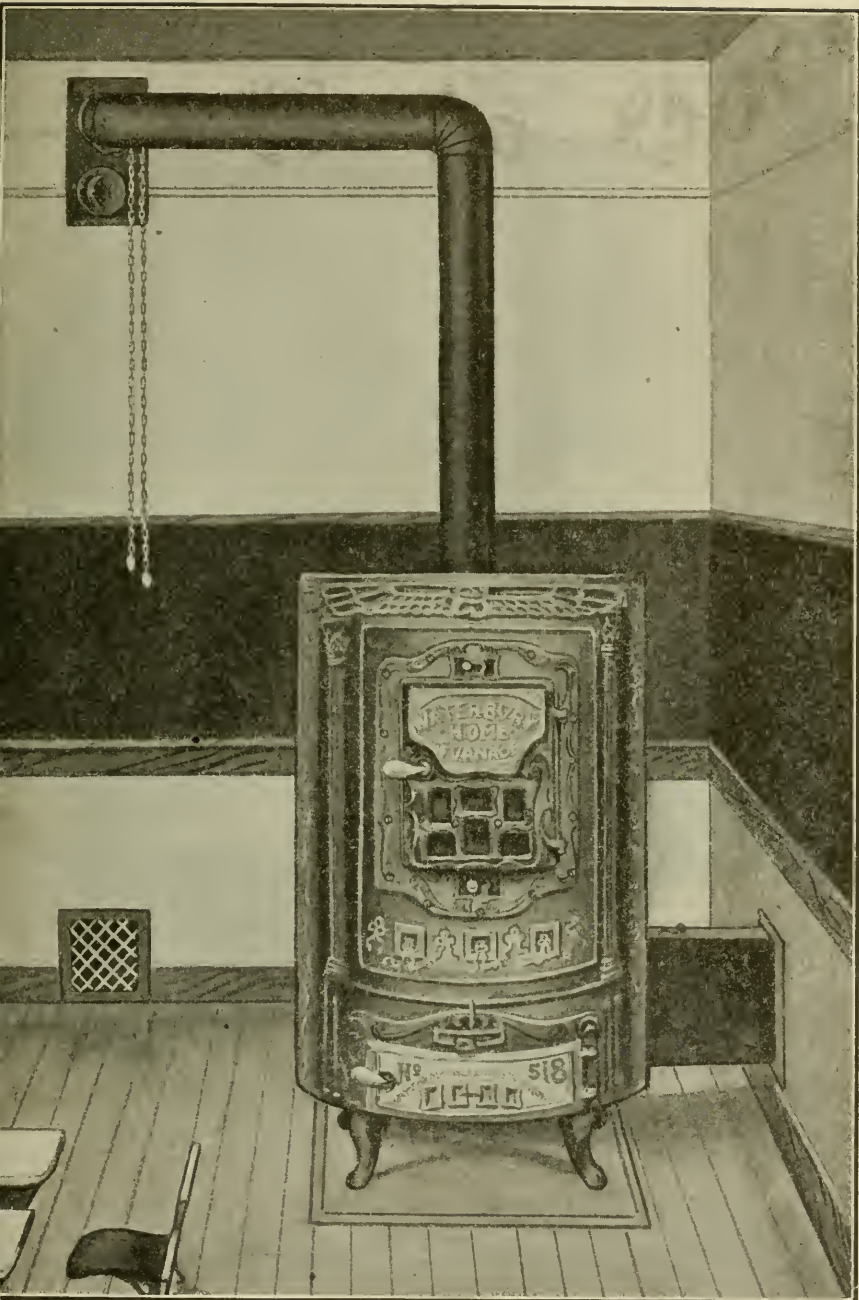
### FINISHED FLOORS.

The finished floors throughout shall be 13-16 x 3 $\frac{1}{4}$ -inch A-grade yellow pine, closely driven up and blind-nailed; all head joints and uneven places dressed smooth as soon as laid.

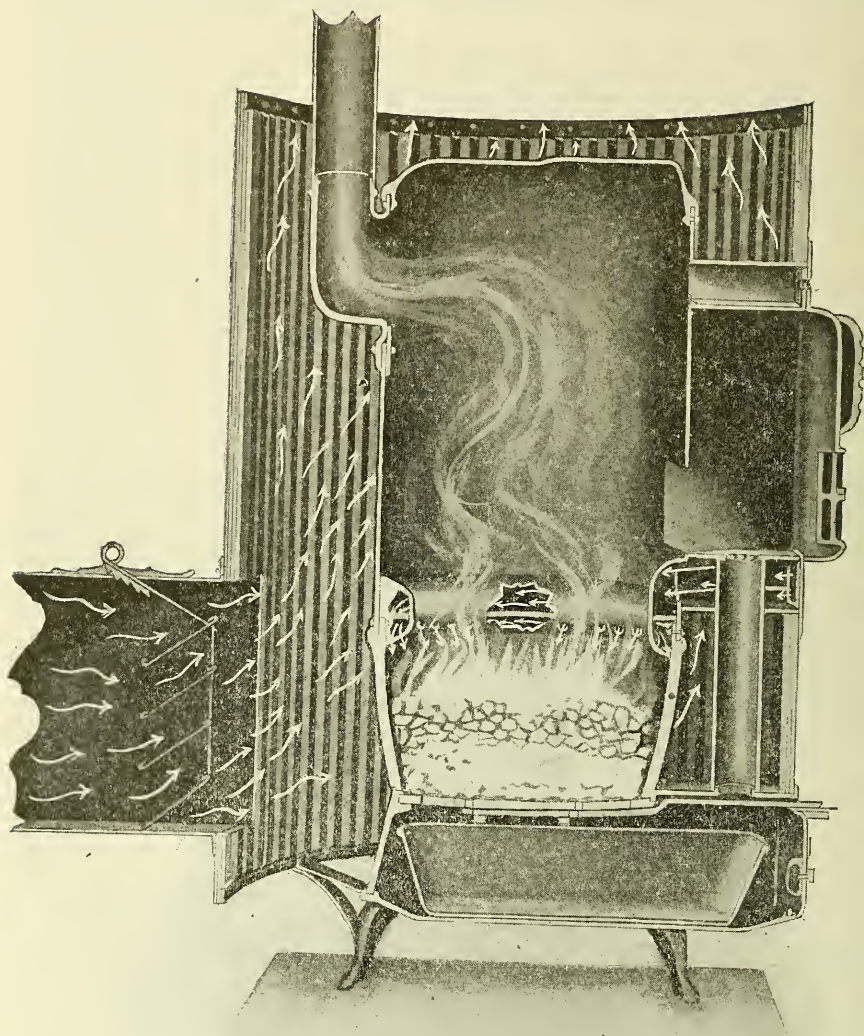
Lay between subfloor and finished floor one thickness of deadening felt, weighing not less than 6 square feet to the pound. Finished floors shall not be laid until plastering is thoroughly dry.







No. 1—OUTSIDE VIEW.



No. 2—INSIDE VIEW.

## INTERIOR FINISH.

All stock for interior finish shall be A-grade, thoroughly seasoned yellow pine, fashioned accurately, according to the detail drawings furnished for same, put in place in a neat and workmanlike manner.

## DOORS.

All doors shall be of size and thickness shown on floor plans, blind-mortised and tenoned with flat cross panels. Outside doors shall be flush-moulded; inside doors O. G. edge. All doors to be AA oil-finish doors.

## WAINSCOTING AND CASINGS.

The schoolrooms, vestibules and halls shall be wainscoted window-sill high, with worked wainscoting cap and base. Case up all openings with the finish detailed for same. Windows to have moulded stool and apron. All stools, aprons, and mouldings to be mitered and returned to wall line at ends.

Prepare walls to receive blackboards in the positions indicated, and put up moulded chalk rail and cap moulding after boards are set.

Cut down half-round thresholds of hard pine for each door opening. Cut mitered borders around all stair-well openings. Place base knobs with rubber tips for each door opening; also wood angle beads for all plastered corners.

## STAIRWAY.

Build stairway for two-story building as shown by detail drawings. Set newels, hand rail and balusters and ceil soffits with narrow beaded ceiling. Threads shall be  $1\frac{1}{4}$  inches thick, strongly supported on 2-inch plank carriages.

## LUNCH CUPBOARD.

Build for each coat-room one lunch cupboard with paneled doors and shelves, spaced as may be directed. Doors shall

be hung on loose-pin butts and provided with good quality mortise knob lock with three keys.

#### TEACHER'S PLATFORM.

Build and place for each schoolroom one movable platform, 4 feet 6 inches wide by 6 feet long and 8 inches high. Top shall be floored same as specified for schoolrooms, with dressed riser, nosing and scotia at face.

#### ROLLING PARTITIONS.

Where rolling partitions are shown, they will be the partition manufactured by James G. Wilson, New York City, of Southern yellow pine, put up as per manufacturer's printed directions, and left in perfect working order.

#### HARDWARE.

Furnish and fix in place for single doors good quality  $4\frac{1}{4}$ -inch mortise knob locks, three lever tumblers, with  $2\frac{1}{4}$ -inch knobs,  $2\frac{1}{4} \times 7\frac{1}{2}$ -inch rose and escutcheon. For outside doors, good quality cylinder mortise knob lock, three keys. Doors shall be hung on loose-pin steel butts, of a size to throw door clear of finish. Doors 7 feet high and over shall have three butts. Transoms shall be hinged at bottom with loose-pin butts, and provided with suitable transom workers. Sash shall have one steel sash lock and two finger lifts, each window. All trim hardware shall be Bower Barff finish, on wrought steel.

Furnish and set for vent flues 12-inch by 15-inch japanned iron registers, and for fresh-air inlets opening in foundation walls heavy wire guards of No. 12 wire, 1-inch mesh, channel iron frame, size 12 x 16 inches.

Furnish and fix in place in each coat-room five dozen japanned wardrobe hooks.



## PAINTING.

Properly prepare all woodwork for painting. Sandpaper smooth all rough surfaces. Putty up all nail holes and other defects. Prime all exterior woodwork as soon as put in place with body color thinned with pure linseed oil. Provided, however, that no woodwork shall be primed or painted while damp or during damp or rainy weather.

Paint the exterior of the building with two coats (in addition to priming coat) of an approved ready-mixed paint (Sherwin & Williams', Lowe Bros.', Harrison's, or equal), in such tints as may be selected. Paint all tin and galvanized iron work two coats of "Dixon's" silica graphite paint.

Paint all interior woodwork, including wood ceilings, three coats, of same paints as specified for exterior. Give porch floors two coats of raw linseed oil.

## GLAZING.

Prime the sash before glazing. All glass shall be properly bedded, sprigged, back-puttied and left whole and sound on completion of the work. Glaze the sash throughout with AA quality double-strength sheet glass.

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The quantities called for in the following bills of material are based on the dimensions and construction shown by the working drawings and details, and any departure from this construction will change the quantities required. Only sufficient material is included to complete the work in accordance with these plans. No allowance is made for scaffolding or other outside uses. In framing, long timbers should be framed first; no long timbers should be cut to make short lengths until long timbers are all framed; this will apply to sills, girders, joists, studding, rafters, etc. In estimating quantities for brickwork, lots are considered level and build-



ings set at the elevation above grade line shown on drawings. If lots are not level and buildings are set higher above grade, more brick will be required.

Plans Nos. 1, 2, 2 A, 2 B and 2 C are figured for brick piers for foundations, the space between piers to be boarded up as called for in specifications. Other plans are figured for 9-inch walls to grade line, with piers and 4-inch brick curtain walls between same above grade.

See one-fourth-inch scale working drawings and details for dimensions and style, and specifications for grade of all materials.

Where bills of materials mention windows, they will include frames, glazed sash, weights and cord, parting bead, stops and trim, as shown by detail drawings and as specified.

Doors will include frame, door, glazed transom, carpet strip and trim.

Bills of materials do not include materials for painting, tin or sheet-metal work.

BILL OF MATERIALS FOR ONE-ROOM SCHOOL BUILDING,  
PLAN No. 1.

5,300 brick.  
6 barrels lime.  
4 yards sand.  
1 6-inch stovepipe thimble.  
170 lineal feet 6x10 sills.  
200 feet boarding between piers.  
20 feet 1x3 for frames between piers.  
46 pieces 2x10x13 floor joists.  
14 pieces 2x10x12 floor joists.  
140 lineal feet 1½x3 joist bearer.  
160 lineal feet 1x4 bridging.  
375 lineal feet 7⁄8x2 inch grounds.  
110 pieces 2x6x13 studding.  
42 pieces 2x6x10 studding.  
310 lineal 2x6 plates.  
16 pieces 2x8x28 ceiling joists.  
8 pieces 2x8x17 ceiling joists.  
2 pieces 2x6x14 lookouts.  
30 pieces 2x6x18 rafters.  
10 pieces 2x6x12 rafters.

14 pieces  $1\frac{1}{2} \times 8 \times 12$  king posts.  
 14 pieces  $1\frac{1}{2} \times 6 \times 18$  struts.  
 2,750 feet  $\frac{7}{8}$  inch surfaced sheathing.  
 750 feet  $\frac{7}{8} \times 4$  inch shingling strips.  
 8,750 shingles.  
 5 windows, 12 lights  $12 \times 18$ , transoms, 3 lights  $12 \times 18$ .  
 2 windows, 12 lights  $10 \times 16$ .  
 2 triple slat ventilators for gables.  
 1 outside door  $3-0 \times 7-0 \times 0-1\frac{3}{4}$ , sash door, 18 inch transom glass.  
 1 inside door  $3-0 \times 7-0 \times 0-1\frac{3}{4}$ , 18 inch transom glass.  
 2 inside doors  $2-10 \times 7-0 \times 0-1\frac{3}{4}$ , 18 inch transom glass.  
 170 lineal feet main cornice.  
 45 lineal feet coat-room cornice.  
 160 lineal feet  $1\frac{1}{4} \times 4\frac{1}{2}$  inch corner casings.  
 80 lineal feet  $1\frac{1}{8}$  inch quarter round.  
 24 lineal feet  $1\frac{1}{4} \times \frac{1}{4}$  inch angle bead.  
 120 lineal feet water table.  
 2,250 feet siding.  
 1,800 feet waterproof building paper.  
 9 pieces  $1\frac{1}{4} \times 4 \times 12$  platform and treads for front steps.  
 2 pieces  $\frac{7}{8} \times 7\frac{1}{2}$  risers.  
 2 pieces  $2 \times 12 \times 16$  carriages and platform.  
 1,000 feet  $13-16 \times 3\frac{1}{4}$  inch flooring.  
 800 square feet of deadening felt.  
 1,650 feet  $11-16 \times 3\frac{1}{4}$  inch ceiling.  
 160 lineal feet  $2\frac{1}{4}$  inch crown moulding.  
 80 lineal feet  $\frac{7}{8}$  inch quarter round.  
 2 brackets for hood over front door.  
 130 lineal feet wainscoting, cut window-sill high, with cap and base.  
 34 lineal feet chalk trough and cap.  
 1 flag pole 14 feet long, 12 feet turned.  
 1 teacher's platform.  
 1 lunch closet.  
 2,150 laths.  
 6 barrels lime.  
 3 yards sand.  
 3 bushels hair.

## HARDWARE.

1 cylinder lock for front door.  
 $1\frac{1}{2}$  pairs butts.  
 1 pair butts for transom.  
 1 transom lifter.  
 3 mortise knob locks for inside doors.  
 $4\frac{1}{2}$  pairs butts.  
 3 pairs butts for transoms.  
 3 transom lifters.

- 5 sash locks.
- 10 sash lifts.
- 5 pairs butts for transoms.
- 5 transom workers.
- 5 dozen japanned wardrobe hooks.
- 1 12x15 japanned register for vent flues.

BILL OF MATERIALS FOR TWO-ROOM SCHOOL BUILDING.  
PLAN No. 2 C.

- 7,100 brick.
- 8 barrels lime.
- 5 yards sand.
- 2 6-inch stovepipe thimbles.
- 310 lineal feet 6x10 sills and girders.
- 25 lineal feet 4x8 sills for porch.
- 390 lineal feet  $1\frac{1}{2}$ x3 joist bearer.
- 340 lineal feet 1x4 bridging.
- 92 pieces 2x10x13 floor joists.
- 26 pieces 2x10x9 floor joists.
- 6 pieces 2x8x10 porch joists.
- 700 lineal feet  $\frac{7}{8}$ x2 inch grounds.
- 160 pieces 2x6x13 studding.
- 80 pieces 2x6x10 studding.
- 30 pieces 2x6x12 studding.
- 576 lineal feet 2x6 wall plates.
- 30 pieces 2x6x26 ceiling joists.
- 10 pieces 2x6x17 ceiling joists.
- 4 pieces 2x6x12 ceiling joists.
- 7 pieces 2x6x12 lookouts.
- 60 pieces 2x6x18 rafters.
- 8 pieces 2x6x14 rafters.
- 14 pieces 2x6x10 rafters.
- 2 pieces 2x10x24 valley rafters.
- 35 pieces  $1\frac{1}{2}$ x8x12 king posts.
- 26 pieces  $1\frac{1}{2}$ x6x18 struts.
- 275 feet boarding between piers.

MATERIALS FOR TRUSS OVER ROLLING PARTITIONS.

- 2 pieces 6x8x10 posts.
- 2 pieces 6x12x24.
- 1 piece 6x12x12.
- 1 piece 6x6x8.
- 1 piece 4x4x10.
- 1 piece 4x6x12.
- 3 1-inch rods 3 feet 10 inches long.
- 2  $\frac{5}{8}$ -inch bolts 1 foot long.

- 2  $\frac{1}{2}$ x6 inch steel plates.
- 260 lineal feet 1x3 frames between piers.
- 4,500 feet  $\frac{7}{8}$  inch surfaced sheathing.
- 1,500 feet  $\frac{7}{8}$ x4 inch shingling strips.
- 18,500 shingles.
- 3,200 feet siding.
- 2,700 square feet building paper.
- 10 windows, 12 lights 12x18, transoms.
- 3 lights 12x18.
- 3 windows, 12 lights 10x16.
- 3 triple slat ventilators for gables.
- 1 pair outside double doors, 2-6x7-0x0-1 $\frac{3}{4}$  each, sash doors, 18 inch transom glass.
- 2 inside doors 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 6 inside doors 2-10x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 232 lineal feet main cornice.
- 85 lineal feet coat-room and porch cornice.
- 80 lineal feet belt across gables.
- 190 lineal feet 1 $\frac{1}{4}$ x4 $\frac{1}{2}$  inch corner casings.
- 95 lineal feet 1 $\frac{1}{8}$  inch quarter round.
- 40 lineal feet 1 $\frac{1}{4}$ x1 $\frac{1}{4}$  inch angle bead.
- 170 lineal feet water table.
- 125 feet 5-4x3 $\frac{1}{4}$  inch porch floor.
- 2,000 feet 13-16x3 $\frac{1}{4}$  inch flooring.
- 1,500 square feet deadening felt.
- 3,450 feet 11-16x3 $\frac{1}{4}$  inch beaded ceiling.
- 140 lineal feet 2 $\frac{1}{4}$  inch crown mould.
- 250 lineal feet  $\frac{3}{4}$  inch quarter round.
- 28 lineal feet porch sill casing and mould.
- 28 lineal feet porch plate casing and mould.
- 8 brackets.
- 12 lineal feet top and bottom rail with balusters.
- 4 columns.
- 2 half columns.
- 150 lineal feet 1 $\frac{1}{4}$ x4 treads outside steps.
- 50 lineal feet  $\frac{7}{8}$ x7 $\frac{1}{2}$  risers outside steps.
- 2 pieces 2x12x12 carriages.
- 165 lineal feet wainscoting, cut window-sill high, with cap and casing.
- 50 lineal feet chalk trough and mould.
- 1 flag pole 14 feet long, 12 feet turned.
- 1 "Wilson's" rolling partition for opening 17 feet, 3 inches wide, 9 feet high.
- 2 teachers' platforms.
- 2 lunch closets.
- 3,650 laths.

10 barrels lime.  
5 yards sand.  
5 bushels hair.

## HARDWARE.

1 cylinder lock for front doors.  
3 pairs butts for front doors.  
Top and bottom bolts.  
1 transom lifter.  
1 pair butts for transom.  
8 mortise knob locks for inside doors.  
12 pairs butts for inside doors.  
8 pairs butts for transoms.  
8 transom lifters; 13 sash locks.  
13 sash locks.  
26 sash lifts.  
10 pairs butts for window transoms.  
10 transom lifters.  
10 dozen japanned iron wardrobe hooks.  
2 12x15 japanned iron registers for vent flues.

BILL OF MATERIALS FOR THREE-ROOM SCHOOL BUILDING.  
PLAN No. 3.

15,700 brick.  
17 barrels lime.  
10 yards sand.  
370 lineal feet 6x10 for sills and girders.  
88 pieces 2x10x13 floor joists.  
24 pieces 2½x10x19 floor joists.  
17 pieces 2x10x18 floor joists.  
36 lineal feet 4x8 porch sills.  
18 pieces 2x8x10 porch joists.  
360 lineal feet 1½x3 joist bearer.  
400 lineal feet 1x4 bridging.  
1,200 lineal feet 7⁄8x2 inch grounds.  
275 pieces 2x6x13 studding.  
84 pieces 2x6x10 studding.  
684 lineal feet 2x6 plates.  
16 pieces 2x8x22 ceiling joists.  
3 pieces 2x8x28 ceiling joists.  
28 pieces 2x8x27 ceiling joists.  
12 pieces 2x8x18 ceiling joists.  
14 pieces 2x6x12 ceiling joists for porch.  
6 pieces 2x6x12 lookouts.  
50 pieces 2x6x16 rafters.  
62 pieces 2x6x18 rafters.  
2 pieces 2x10x23 valley rafters.



- 6 pieces 2x10x18 hips and valleys.
- 2 pieces 2x10x16 hips and valleys.
- 16 pieces 2x6x14 porch rafters.
- 56 pieces 1½x8x12 king posts.
- 36 pieces 1½x6x18 struts.

## MATERIALS FOR TRUSS OVER ROLLING PARTITION.

- 2 pieces 6x8x10 posts.
- 2 pieces 6x12x24.
- 1 piece 6x12x12.
- 1 piece 6x6x8.
- 1 piece 4x4x10.
- 1 piece 4x6x12.
- 3 1-inch rods 3 feet 10 inches long.
- 2 ⅝-inch bolts 1 foot 6 inches long.
- 2 ¾-inch bolts 1 foot long.
- 2 ½-inch by 6 inch steel plates 16 inches long, bent and punched for bolts.
- 6,000 feet ⅞ inch surfaced sheathing.
- 2,200 feet ⅞x4 inch surface shingling strips.
- 26,750 shingles.
- 4,000 feet siding.
- 3,500 square feet building paper.
- 15 windows, 12 lights 12x18, transoms, 3 lights 12x18.
- 4 windows, 12 lights 10x16.
- 3 triple slat ventilators for gables.
- 1 pair entrance doors 2-6x7-0x0-1¾, 18 inch transom glass (sash doors).
- 3 doors 3-0x7-0x0-1¾, 18 inch transom glass.
- 7 doors 2-10x7-0x0-1¾, 18 inch transom glass.
- 320 lineal feet each member main cornice.
- 50 lineal feet each member porch cornice.
- 40 lineal feet each member tower cornice.
- 78 lineal feet belts across gables.
- 220 lineal feet 1¼x4½ inch corner casing.
- 110 lineal feet 1¼ inch quarter round.
- 50 lineal feet 1¼x1¼ inch angle bead.
- 210 lineal feet water table.
- 375 lineal feet 5-4x3¼ inch flooring.
- 2,750 feet 13-16x3¼ inch flooring.
- 2,000 square feet deadening felt.
- 4,000 feet 11-16x3¼ inch beaded ceiling.
- 310 lineal feet 2½ inch crown moulding.
- 225 lineal feet ⅞ inch quarter round.
- 4 porch columns.
- 2 half porch columns.
- 26 lineal feet top and bottom rail and balusters.

- 40 lineal feet sill casing.
- 40 lineal feet plate casing.
- 10 brackets.
- 90 lineal feet  $1\frac{1}{4} \times 4$  inch treads porch steps.
- 30 lineal feet  $\frac{7}{8} \times 7\frac{1}{2}$  inch riser steps.
- 35 lineal feet cap tower rail.
- 8 tower columns.
- 8 double brackets.
- 8 sawed rafters for tower.
- 240 lineal feet wainscoting cap and base.
- 90 lineal feet chalk trough and cap.
- 1 flag pole 14 feet long, 12 feet turned.
- 1 set "Wilson's" rolling partitions for opening 20 feet 6 inches wide, 9 feet high.
- 3 teachers' platforms.
- 3 lunch cupboards.
- 5,640 laths.
- 15 barrels lime.
- $7\frac{1}{2}$  yards sand.
- $7\frac{1}{2}$  bushels hair.

## HARDWARE.

- 1 cylinder lock for front doors.
- 3 pairs butts.
- Top and bottom bolts.
- 1 pair butts for transom.
- 1 transom worker.
- 10 mortise knob locks.
- 15 pairs butts.
- 10 pairs butts for transoms.
- 10 transom workers.
- 19 sash locks.
- 38 sash lifts.
- 15 pairs butts for transoms.
- 15 transom workers.
- 15 dozen wardrobe hooks.
- 3 japanned iron registers for vent flues.

BILL OF MATERIALS FOR TWO-ROOM SCHOOL BUILDING,  
PLAN No. 2.

- 7,600 brick.
- 9 barrels lime.
- 5 yards sand.
- 2 stovepipe thimbles.
- 290 lineal feet  $6 \times 10$  sills and girders.
- 275 feet boarding between piers.
- 275 lineal feet  $2 \times 3$  for frames between piers.
- 94 pieces  $2 \times 10 \times 13$  floor joists.

16 pieces 2x10x16 floor joists.  
 40 lineal feet 4x8 porch sills.  
 10 pieces 2x8x10 porch joists.  
 325 lineal feet  $1\frac{1}{2}$ x3 inch joist bearer.  
 350 lineal feet 1x4 inch bridging.  
 660 lineal feet  $\frac{7}{8}$ x2 inch grounds.  
 170 pieces 2x6x13 studding.  
 100 pieces 2x6x10 studding.  
 540 lineal feet 2x6 plates.  
 8 pieces 2x8x28 ceiling joists.  
 24 pieces 2x8x27 ceiling joists.  
 12 pieces 2x8x16 ceiling joists.  
 8 pieces 2x6x10 lookouts.  
 64 pieces 2x6x18 rafters.  
 46 pieces 2x6x12 rafters.  
 2 pieces 2x10x24 valley rafters.  
 30 pieces  $1\frac{1}{2}$ x8x12 king posts.  
 30 pieces  $1\frac{1}{2}$ x6x18 struts.

## MATERIALS FOR TRUSS OVER ROLLING PARTITION.

2 pieces 6x8x10 posts.  
 2 pieces 6x12x24.  
 1 piece 6x12x12.  
 1 piece 6x6x8.  
 1 piece 4x4x10.  
 1 piece 4x6x12.  
 3 1-inch rods 3 feet 10 inches long.  
 2  $\frac{5}{8}$ -inch bolts 1 foot 6 inches long.  
 2  $\frac{5}{8}$ -inch bolts 1 foot long.  
 2  $\frac{1}{2}$ x6-inch steel plates 16 inches long, bent and punched for bolts.  
 3,000 feet  $\frac{7}{8}$  inch surfaced sheathing.  
 1,600 feet  $\frac{7}{8}$ x4 inch shingling strips.  
 20,500 shingles.  
 2,850 feet siding.  
 2,400 feet waterproof sheathing paper.  
 10 windows, 12 lights 12x18, transoms, 3 lights 12x18.  
 4 windows, 12 lights 10x16.  
 3 slat ventilators for gables.  
 2 double entrance doors 2-6x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.  
 2 inside doors 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.  
 5 inside doors 2-10x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.  
 260 lineal feet main cornice.  
 112 lineal feet coat-room and porch cornice.  
 40 lineal feet tower cornice.  
 80 lineal feet belt across gables.  
 190 lineal feet  $1\frac{1}{4}$ x4 $\frac{1}{2}$  inch corner casing.  
 95 lineal feet  $1\frac{1}{8}$  inch quarter round.

- 36 lineal feet  $1\frac{1}{4} \times 1\frac{1}{4}$  angle bead.
- 165 lineal feet water table.
- 225 feet  $5-4 \times 3\frac{1}{4}$  inch flooring.
- 2,150 feet  $13-16 \times 3\frac{1}{4}$  inch flooring.
- 1,600 square feet deadening felt.
- 3,000 feet  $11-16 \times 3\frac{1}{4}$  beaded ceiling.
- 225 lineal feet  $2\frac{1}{2}$  inch crown mould.
- 175 lineal feet  $\frac{7}{8}$  inch quarter round.
- 8 porch columns.
- 4 half porch columns.
- 24 lineal feet top and bottom rail and balusters.
- 44 lineal feet sill casing.
- 44 lineal feet plate casing.
- 16 brackets.
- 120 lineal feet  $1\frac{1}{4} \times 4$  inch treads porch steps.
- 40 lineal feet  $\frac{7}{8} \times 7\frac{1}{2}$  inch riser porch steps.
- 2 pieces  $2 \times 12 \times 16$  carriages.
- 35 lineal feet cap for tower base, with mould.
- 8 columns.
- 8 pairs brackets.
- 200 lineal feet wainscoting, cap and base.
- 76 lineal feet chalk trough and cap.
- 1 flag pole 14 feet long, 12 feet turned.
- 1 set "Wilson's" rolling partitions for opening 17 feet 3 inches wide, 9 feet high.
- 2 teachers' platforms.
- 2 lunch closets.
- 3,600 laths.
- 10 barrels lime.
- 5 yards sand.
- 5 bushels hair.

## HARDWARE.

- 2 cylinder locks for front doors.
- 6 pairs butts for same.
- 2 top and bottom bolts.
- 2 pairs butts for transom.
- 2 transom lifters.
- 7 mortise knob locks for inside doors.
- $10\frac{1}{2}$  pairs butts for same.
- 7 pairs butts for transoms.
- 7 transom workers.
- 10 sash locks.
- 20 sash lifts.
- 10 pair butts for transom.
- 10 transom lifters.
- 10 dozen wardrobe hooks.
- 2 japanned iron registers for vent flues.

BILL OF MATERIALS FOR TWO-ROOM SCHOOL BUILDING.  
PLAN No. 2 A.

8,000 brick.  
9 barrels lime.  
6 yards sand.  
2 6-inch stovepipe thimbles.  
340 lineal feet 6x10 for sills and girders.  
35 lineal feet 4x8 porch sills and girders.  
310 lineal feet 1½x3 joist bearer.  
375 lineal feet 1x4 bridging.  
500 lineal feet 7⁄8x2 inch grounds.  
92 pieces 2x10x13 floor joists.  
8 pieces 2x10x16 floor joists.  
12 pieces 2x10x12 floor joists.  
10 pieces 2x8x10 porch joists.  
1 piece 1x8x12 porch joists.  
180 pieces 2x6x13 studding.  
40 pieces 2x6x10 studding.  
16 pieces 2x6x12 studding.  
540 lineal feet 2x6 plates.  
60 pieces 2x6x18 rafters.  
20 pieces 2x6x15 rafters.  
10 pieces 2x6x16 rafters.  
8 pieces 2x6x12 lookouts.  
4 pieces 2x10x24 hips and valleys.  
2 pieces 2x10x19 valleys.  
28 pieces 2x8x28 ceiling joists.  
12 pieces 2x8x16 ceiling joists.  
9 pieces 2x8x14 ceiling joists.  
34 pieces 1½x8x12 king posts.  
34 pieces 1½x6x18 struts.  
280 feet boarding between piers.  
24 pieces 2x3x12 frames between piers.  
3,000 feet siding.  
2,500 square feet waterproof building paper.

MATERIALS FOR TRUSS OVER ROLLING PARTITION.

2 pieces 6x8x10 posts.  
2 pieces 6x12x24.  
1 piece 6x12x12.  
1 piece 6x6x8.  
1 piece 4x4x10.  
1 piece 4x6x12.  
3 1-inch rods 3 feet 10 inches long.  
2 5⁄8-inch bolts 1 foot 6 inches long.



- 2  $\frac{5}{8}$ -inch bolts 1 foot long.
- 2  $\frac{1}{2}$ x6-inch steel plates 16 inches long, bent and punched for bolts.
- 4,000 feet  $\frac{7}{8}$  inch surfaced sheathing.
- 2,500 feet  $\frac{7}{8}$ x4 inch shingling strips.
- 19,000 shingles.
- 10 windows, 12 lights 12x18, transoms.
- 3 lights 12x18.
- 4 windows, 12 lights 10x16.
- 2 triple slat ventilators for gables.
- 1 pair outside double doors 2-6x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 5 inside doors 2-10x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 2 inside doors 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 200 lineal feet main cornice.
- 50 lineal feet coat-room cornice.
- 26 lineal feet belt across rear gable.
- 48 lineal feet paneled frieze over porch.
- 250 lineal feet 1 $\frac{1}{4}$ x4 $\frac{1}{2}$  inch corner casings.
- 125 lineal feet 1 $\frac{1}{8}$  inch quarter round.
- 70 lineal feet 1 $\frac{1}{4}$ x1 $\frac{1}{4}$  quarter angle bead.
- 160 lineal feet water table.
- 300 feet 5-4x3 $\frac{1}{4}$  inch porch flooring.
- 2,000 feet 13-16x3 $\frac{1}{4}$  inch flooring.
- 1,500 square feet deadening felt.
- 3,250 feet 11-16x3 $\frac{1}{4}$  inch beaded ceiling.
- 210 lineal feet 2 $\frac{1}{4}$  inch crown moulding at ceiling of class-rooms.
- 210 lineal feet  $\frac{7}{8}$  inch quarter round.
- 38 lineal feet sill casing and mould.
- 38 lineal feet plate casing and mould.
- 4 porch columns.
- 2 half porch columns.
- 10 brackets.
- 22 lineal feet top and bottom rail and balusters.
- 150 lineal feet 1 $\frac{1}{4}$ x4 treads outside steps.
- 50 lineal feet  $\frac{7}{8}$ x7 $\frac{1}{2}$  risers outside steps.
- 6 pieces 2x12x10 carriages.
- 196 lineal feet wainscoting, cut window-sill high, cap and base.
- 34 lineal feet chalk trough and cap.
- 1 flag pole 14 feet long, 12 feet turned.
- "Wilson's" rolling partition for opening 17 feet 3 inches wide,  
9 feet high.
- 2 teachers' platforms.
- 2 lunch closets.
- 3,500 laths.
- 10 barrels lime.
- 5 yards sand.
- 5 bushels hair.

## HARDWARE.

1 cylinder lock for front doors.  
3 pairs butts for front doors.  
Top and bottom bolts for front doors.  
1 transom for front door.  
1 pair butts for transom for front door.  
7 mortise knob locks for inside doors.  
10½ pairs butts for inside doors.  
7 transom lifters for inside doors.  
7 pairs butts for transoms.  
14 sash locks.  
28 sash lifts.  
10 pairs butts for window transoms.  
10 transom lifters.  
10 dozen japanned wardrobe hooks.  
2 12x15 inch japanned iron registers for vent flues.

## BILL OF MATERIALS FOR TWO-ROOM SCHOOL BUILDING.

## PLAN No. 2 B.

7,000 brick.  
8 barrels lime.  
5 yards sand.  
2 6-inch stovepipe thimbles.  
248 lineal feet 6x10 for sills and girders.  
32 lineal feet 4x8 sills for porch.  
90 pieces 2x10x13 floor joists.  
12 pieces 2x10x9 floor joists.  
7 pieces 2x8x14 porch joists.  
275 lineal feet 1½x3 joist bearer.  
350 lineal feet 1x4 bridging.  
450 lineal feet 7⁄8x2 grounds.  
220 pieces 2x6x13 studding.  
24 pieces 2x6x16.  
475 lineal feet 2x6 plates.  
34 pieces 2x8x28 ceiling joists.  
6 pieces 2x6x12 lookouts.  
74 pieces 2x6x18 rafters.  
6 pieces 2x10x24 hip and valley rafters.  
30 pieces 1½x8x12 king posts main roof.  
112 pieces 1½x6x9 strut posts main roof.  
22 pieces 2x3x12 frames between piers.  
285 feet boarding between piers.  
3,500 feet siding.  
3,000 square feet waterproof building paper.

## MATERIALS FOR TRUSS OVER ROLLING PARTITIONS.

- 2 pieces 6x8x10 posts.
- 2 pieces 6x12x24.
- 1 piece 6x12x12.
- 1 piece 6x6x8.
- 1 piece 4x4x10.
- 1 piece 4x6x12.
- 3 1-inch rods 3 feet 10 inches long.
- 2  $\frac{5}{8}$ -inch bolts 1 foot 6 inches long.
- 2  $\frac{5}{8}$ -inch bolts 1 foot long.
- 2  $\frac{1}{2}$ x6-inch steel plates 16 inches long, bent and punched for bolts.
- 4,500 feet  $\frac{7}{8}$  surfaced sheathing.
- 1,500 feet  $\frac{7}{8}$ x4 surfaced shingling strips.
- 17,500 shingles.
- 8 windows, 12 lights 12x18, transom.
- 3 lights 12x18.
- 2 windows, 12 lights 10x16.
- 2 outside doors 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 3 inside doors 2-10x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 225 lineal feet each member main cornice.
- 45 lineal feet belt over porches.
- 124 lineal feet 1 $\frac{1}{4}$ x4 $\frac{1}{2}$  inch corner casings.
- 65 lineal feet 1 inch quarter round.
- 72 lineal feet 1 $\frac{1}{4}$ x1 $\frac{1}{4}$  inch angle bead.
- 1 triple slat ventilator for front gable.
- 225 feet 5-4x3 $\frac{1}{4}$  inch porch flooring.
- 1,850 feet 13-16x3 $\frac{1}{4}$  inch flooring.
- 1,400 square feet deadening felt.
- 2,650 feet 11-16x3 $\frac{1}{4}$  inch beaded ceiling.
- 225 lineal feet  $\frac{3}{4}$  inch quarter round.
- 220 lineal feet 2 $\frac{1}{4}$  inch crown mould for angle at class-room ceilings.
- 12 lineal feet top and bottom porch rail with balusters.
- 24 lineal feet sill casing and moulding.
- 12 pieces 1 $\frac{1}{4}$ x4x12 for treads outside steps.
- 6 pieces  $\frac{7}{8}$ x7 $\frac{1}{2}$ x12 for risers outside steps.
- 2 pieces 2x12x12 carriages.
- 8 sawed brackets for porch.
- 200 lineal feet water table.
- 1 turned flag pole 14 feet long, 12 feet exposed.
- 150 lineal feet of wainscoting, cut window-sill high, with cap and base.
- 80 lineal feet chalk trough and cap.
- "Wilson's" rolling partition for opening 17 feet 3 inches wide, 9 feet high, partition to have movable post in center.

2 teachers' platforms.  
 2 lunch closets.  
 2,850 laths.  
 8 barrels lime.  
 4 yards sand.  
 4 bushels hair.

## HARDWARE.

2 cylinder locks for front doors.  
 3 pairs butts for front doors.  
 2 transom lifters for front doors.  
 3 mortise knob locks for inside doors.  
 4½ pairs butts for inside doors.  
 3 transom lifters for inside doors.  
 5 pairs butts for door transoms.  
 10 sash locks.  
 20 sash lifts.  
 8 pairs butts for window transoms.  
 8 transom lifters for window transoms.  
 10 dozen japanned wardrobe hooks.  
 2 12x15 inch japanned iron registers for vent flues.

BILL OF MATERIALS FOR THREE-ROOM SCHOOL BUILDING.  
 PLAN No. 3 A.

16,500 brick.  
 18 barrels lime.  
 11 yards sand.  
 3 6-inch stovepipe thimbles.  
 420 lineal feet 6x10 sills and girders.  
 88 pieces 2x10x13 floor joists.  
 12 pieces 2x10x16 floor joists.  
 10 pieces 2x10x12 floor joists.  
 6 pieces 2x10x10 floor joists.  
 22 pieces 2½x10x19 floor joists.  
 20 lineal feet 4x8 porch sill.  
 8 pieces 2x8x10 porch joists.  
 420 lineal feet 1½x3 joist bearer.  
 450 lineal feet 1x4 bridging.  
 1,000 lineal feet ¾x2 inch grounds.  
 300 pieces 2x6x13 studding.  
 20 pieces 2x6x10 studding.  
 70 pieces 2x6x12 studding.  
 700 lineal feet 2x6 plates.  
 30 pieces 2x8x28 ceiling joists.  
 16 pieces 2x8x30 ceiling joists.  
 26 pieces 2x8x12 ceiling joists.  
 7 pieces 2x6x12 lookouts.

- 36 pieces 2x6x19 rafters.
- 60 pieces 2x6x18 rafters.
- 30 pieces 2x6x12 rafters.
- 2 pieces 2x10x25 valley rafters.
- 50 pieces 1½x8x12 king posts.
- 44 pieces 1½x6x18 struts.

## MATERIALS FOR TRUSS OVER ROLLING PARTITION.

- 2 pieces 6x8x10 posts.
- 2 pieces 6x12x24.
- 1 piece 6x12x12.
- 1 piece 6x6x8.
- 1 piece 4x4x10.
- 1 piece 4x6x12.
- 3 1-inch rods 3 feet 10 inches long.
- 2 ⅝-inch bolts 1 foot 6 inches long.
- 2 ⅝-inch bolts 1 foot long.
- 2 ½x6-inch steel plates 16 inches long, bent and punched for bolts.
- 2,250 feet ⅞x4 inch shingling strips.
- 28,500 shingles.
- 6,500 feet ⅞-inch sheathing.
- 5,000 feet bevel siding.
- 4,000 square feet "Neponset" waterproof paper.
- 1 pair doors front entrance (sash doors) 2-6x7-0x0-1¾ each, 18 inch transom glass.
- 3 inside doors 3-0x7-0x0-1¾, 18 inch transom glass.
- 6 inside doors 2-10x7-0x0-1¾, 18 inch transom glass.
- 15 windows, 12 lights 12x18, transoms, 3 lights 12x18.
- 4 windows, 12 lights 10x16.
- 3 triple slat ventilators for gables.
- 290 lineal feet main cornice.
- 50 lineal feet porch and coat-room cornice.
- 60 lineal feet tower cornice.
- 80 lineal feet belt across gables.
- 40 lineal feet cap across tower openings.
- 4 ornamental caps for tower corners.
- 210 lineal feet 1¼x4½ inch corner casings.
- 110 lineal feet 1 inch quarter round.
- 50 lineal feet 1¼x1¼ inch angle bead.
- 210 lineal feet water table.
- 175 feet 5-4x3¼ inch porch flooring.
- 3,000 feet 13-16x3¼ inch flooring.
- 2,500 feet deadening felt.
- 5,000 feet 11-16x2¼ beaded ceiling.
- 310 lineal feet 2¼ inch crown moulding.
- 350 lineal feet ⅞ inch quarter round.



20 lineal feet porch sill casing and mould.  
 20 lineal feet plate casing and mould.  
 4 columns.  
 2 half columns.  
 6 brackets.  
 9 pieces  $1\frac{1}{4} \times 4 \times 7$  treads front steps.  
 3 pieces  $\frac{7}{8} \times 7\frac{1}{2} \times 7$  risers front steps.  
 1 piece  $2 \times 12 \times 12$  carriages.  
 9 lineal feet top and bottom rail and balusters.  
 280 lineal feet wainscoting, cut window-sill high, cap and base.  
 102 lineal feet chalk trough and cap.  
 1 flag pole 12 feet long, 10 feet turned.  
 1 set rolling partition for opening 21 feet 6 inches wide, 9 feet high.  
 3 teachers' platforms.  
 3 lunch closets.  
 5,500 laths.  
 15 barrels lime.  
 8 yards sand.  
 8 bushels hair.

## HARDWARE.

1 cylinder lock for front doors.  
 3 pairs butts.  
 Top and bottom bolts.  
 1 pair butts for transom.  
 1 transom lifter.  
 9 mortise knob locks for inside doors.  
 $13\frac{1}{2}$  pairs butts.  
 9 pairs butts for transoms.  
 9 transom lifters.  
 19 sash locks.  
 38 sash lifts.  
 19 pairs butts for transoms.  
 19 transom lifters.  
 15 dozen japanned wardrobe hooks.  
 3  $12 \times 15$  japanned registers for vent flues.  
 3 wire guards  $12 \times 16$  for fresh air inlets.

## BILL OF MATERIALS FOR THREE-ROOM SCHOOL BUILDING.

## PLAN No. 3 B.

17,600 brick.  
 19 barrels lime.  
 12 yards sand.  
 3 6-inch stovepipe thimbles.  
 490 lineal feet  $6 \times 10$  sills and girders.  
 46 pieces  $2 \times 10 \times 13$  floor joists.  
 36 pieces  $2 \times 10 \times 10$  floor joists.

- 24 pieces 2x10x16 floor joists.
- 450 lineal feet  $1\frac{1}{2}$ x3 inch joist bearer.
- 550 lineal feet 1x4 inch bridging.
- 1,200 lineal feet  $\frac{7}{8}$ x2 inch grounds.
- 440 pieces 2x6x13 studding.
- 900 lineal feet 2x6 plates.
- 32 pieces 2x8x29 ceiling joists.
- 14 pieces 2x8x30 ceiling joists.
- 16 pieces 2x8x17 ceiling joists.
- 120 pieces 2x6x19 rafters.
- 14 pieces 2x6x12 rafters.
- 8 pieces 2x10x24 hips and valleys.
- 2 pieces 2x10x16 valleys.
- 50 pieces  $1\frac{1}{2}$ x8x12 king posts.
- 50 pieces  $1\frac{1}{2}$ x6x18 struts.
- 7,000 feet  $\frac{7}{8}$  inch surfaced sheathing.
- 28,750 shingles.
- 2,250 feet  $\frac{7}{8}$ x4 inch shingle strips.
- 4,750 feet siding.
- 4,000 feet waterproof sheathing paper.
- 15 windows, 12 lights 12x18, transoms, 3 lights 12x18.
- 3 windows, 12 lights 10x16.
- 1 slat ventilator front gable.
- 1 pair front entrance doors 2-6x7-0x0-1 $\frac{3}{4}$  each, 18 inch transom glass (sash doors).
- 1 rear door 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 3 inside doors 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 6 inside doors 2-10x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 300 lineal feet cornice.
- 168 lineal feet  $1\frac{1}{4}$ x1 $\frac{1}{2}$  inch corner casing.
- 84 lineal feet  $1\frac{1}{8}$  inch quarter round.
- 60 lineal feet  $1\frac{1}{4}$ x1 $\frac{1}{4}$  angle bead.
- 260 lineal feet water table.
- 225 feet 5-4x3 $\frac{1}{4}$  inch flooring.
- 3,250 feet 13-16x3 $\frac{1}{4}$  inch flooring.
- 5,150 feet 11-16x3 $\frac{1}{4}$  beaded ceiling.
- 350 feet 2 $\frac{1}{4}$  inch crown moulding.
- 310 feet  $\frac{7}{8}$  inch quarter round.
- 165 lineal feet  $1\frac{1}{4}$ x4 inch treads outside steps.
- 60 lineal feet  $\frac{7}{8}$ x7 $\frac{1}{2}$  inch riser outside steps.
- 6 lineal feet cap between columns, with mould.
- 1 bracket for rear porch.
- 4 moulded caps front porch and base.
- 360 lineal feet wainscoting, cap and base.
- 110 lineal feet chalk trough and cap.
- 1 flag pole 14 feet long, 12 feet turned.

3 teachers' platforms.  
 3 lunch closets.  
 6,500 laths.  
 18 barrels lime.  
 9 yards sand.  
 9 bushels hair.

## HARDWARE.

1 cylinder lock for front door.  
 3 pairs butts for front door.  
 Top and bottom bolts.  
 1 pair butts for transom.  
 1 transom lifter.  
 10 mortise knob locks.  
 15 pairs butts.  
 10 pairs butts for transoms.  
 10 transom lifters.  
 18 sash locks.  
 36 sash lifts.  
 15 pairs butts for transoms.  
 15 transom lifters.  
 15 dozen wardrobe hooks.  
 3 japanned iron registers for vent flues.  
 3 wire guards 12x16 for fresh air inlet.

## BILL OF MATERIALS FOR THREE-ROOM SCHOOL BUILDING.

## PLAN No. 3 C.

13,500 brick.  
 16 barrels lime.  
 10 yards sand.  
 3 6-inch stovepipe thimbles.  
 340 lineal feet 6x10 for sills and girders.  
 18 lineal feet 4x10 for porch sills.  
 19 pieces 2½x10x20 floor joists.  
 6 pieces 2x10x16 floor joists.  
 14 pieces 2x10x12 floor joists.  
 88 pieces 2x10x13 floor joists.  
 7 pieces 2x8x16 porch floor joists.  
 350 lineal feet 1½x3 inch joist bearer.  
 500 lineal feet 1x4 inch bridging.  
 1,200 lineal feet ⅞x1½ inch grounds.  
 210 pieces 2x6x13 studding.  
 88 pieces 2x6x10 studding.  
 600 lineal feet 2x6 for plates.  
 42 pieces 2x8x27 ceiling joists.  
 14 pieces 2x8x18 ceiling joists.  
 6 pieces 2x6x16 lookouts.  
 8 pieces 2x10x23 hip and valley rafters.

- 2 pieces 2x10x20 hip rafters.
- 50 pieces 2x6x18 rafters.
- 30 pieces 2x6x17 rafters.
- 20 pieces 2x6x14 rafters.
- 30 pieces 1½x8x12 king posts.
- 30 pieces 1½x6x18 struts.

## MATERIALS FOR TRUSS OVER SLIDING DOOR OPENINGS.

- 2 pieces 6x8x10.
- 2 pieces 6x10x20.
- 1 piece 6x12x12.
- 1 piece 6x6x8.
- 1 piece 4x4x10.
- 1 piece 4x6x12.
- 3 1-inch rods 3 feet 10 inches long.
- 2 ⅝-inch bolts 1 foot 6 inches long.
- 2 ⅝-inch bolts 1 foot long.
- 2 ½x6-inch steel plates 16 inches long, bent and punched for bolts.
- 6,000 feet ⅞ inch surfaced sheathing.
- 1,500 feet ⅞x4 shingling strips.
- 18,000 shingles.
- 3,750 feet siding.
- 3,000 square feet building paper.
- 13 windows, 12 lights 12x18, transoms, 3 lights 12x18.
- 2 windows, 12 lights 10x16.
- 2 pairs outside entrance doors 2-6x7-0x0-1¼ each. 18 inch transom glass.
- 4 inside doors 3-0x7-0x0-1¼, 18 inch transom glass.
- 5 inside doors 2-10x7-0x0-1¼, 18 inch transom glass.
- 230 lineal feet main cornice.
- 65 lineal feet coat-room cornice.
- 210 lineal feet 1¼x4½ inch corner casings.
- 110 lineal feet 1⅝ inch quarter round.
- 110 lineal feet 1¼x1¼ inch angle bead.
- 200 lineal feet water table.
- 160 feet 5-4x3½ inch porch floor.
- 3,000 feet 13-16x3¼ inch flooring.
- 2,200 square feet deadening felt.
- 3,750 feet 11-16x3¼ inch ceiling.
- 200 lineal feet ⅞ inch quarter round.
- 300 lineal feet 2¼ inch crown moulding.
- 4 moulding pilasters front entrance.
- 2 moulded caps over pilasters front entrance.
- 18 pieces 1¼x4 inch for treads front steps.
- 6 pieces ⅞x7½ inch for risers front steps.
- 16 lineal feet sill casing.
- 276 lineal feet wainscoting, cut window-sill high, with cap and base.

110 lineal feet chalk trough and cap.  
1 flag pole 14 feet long, 12 feet turned.  
1 set "Wilson's" rolling partitions for opening 18 feet 6 inches wide, 9 feet high.  
3 teachers' platforms.  
3 lunch cupboards.  
5,000 laths.  
14 barrels lime.  
7 yards sand.  
7 bushels hair.

## HARDWARE.

2 cylinder locks for front doors.  
6 pairs butts.  
2 top and bottom bolts.  
2 pairs butts for transoms.  
2 transom lifters.  
9 mortise knob locks for inside doors.  
13½ pairs butts.  
9 pairs butts for transoms.  
9 transom lifters.  
15 sash locks.  
30 sash lifts.  
13 pairs butts for transoms.  
13 transom lifters.  
15 dozen wardrobe hooks.  
3 12x15 japanned iron registers for vent flues.  
3 12x16 wire guards for fresh air inlets.

BILL OF MATERIALS FOR FOUR-ROOM SCHOOL BUILDING,  
PLAN No. 4.

20,200 brick.  
22 barrels lime.  
14 yards sand.  
690 lineal feet 6x10 sills and girders.  
44 pieces 2x10x13 floor joists.  
24 pieces 2x10x17 floor joists.  
22 pieces 2x10x14 floor joists.  
32 pieces 2x10x12 floor joists.  
400 lineal feet 1½x3 inch joist bearer.  
750 lineal feet 1x4 inch bridging.  
30 lineal feet 4x8 porch sills.  
6 pieces 2x8x16 porch joists.  
1,750 lineal feet ¾x2 inch grounds.  
450 pieces 2x6x13 studding.  
900 lineal feet 2x6 plates.  
14 pieces 2x8x23 ceiling joists.  
18 pieces 2x8x26 ceiling joists.



- 8 pieces 2x8x12 ceiling joists.
- 16 pieces 2x8x17 ceiling joists.
- 14 pieces 2x8x30 ceiling joists.
- 16 pieces 2x8x28 ceiling joists.
- 8 pieces 2x6x16 lookouts.
- 10 pieces 2x6x24 rafters.
- 110 pieces 2x6x19 rafters.
- 30 pieces 2x6x20 rafters.
- 50 pieces 2x6x14 rafters.
- 3 pieces 2x10x27 hips and valleys.
- 5 pieces 2x10x22 hips and valleys.
- 2 pieces 2x10x16 hips and valleys.
- 52 pieces  $1\frac{1}{2}$ x8x12 king posts.
- 52 pieces  $1\frac{1}{2}$ x6x18 struts.
- 2 pieces 6x8x10 posts.
- 2 pieces 6x12x20.
- 1 piece 6x12x12.
- 1 piece 6x6x8.
- 1 piece 4x4x10.
- 1 piece 4x6x12.
- 3 1-inch rods 3 feet 10 inches long.
- 2  $\frac{5}{8}$ -inch bolts 1 foot 6 inches long.
- 2  $\frac{5}{8}$ -inch bolts 1 foot long.
- 2  $\frac{1}{2}$ x6-inch steel plates 16 inches long, bent and punched for bolts.
- 8,500 feet  $\frac{7}{8}$  inch surfaced sheathing.
- 3,250 feet  $\frac{7}{8}$ x4 inch shingling strips.
- 40,000 shingles.
- 4,500 feet siding.
- 3,600 waterproof sheathing.
- 19 windows, 12 lights 12x18, transoms, 3 lights 12x18.
- 1 blind frame paneled same size (see drawings).
- 4 windows, 12 lights 10x6.
- 3 triple slat ventilators for gables.
- 1 pair outside entrance doors 2-6x7-0x0-1 $\frac{3}{4}$  each, 18 inch transom glass.
- 4 doors 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 9 doors 2-10x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.
- 1 closet door 1-6x4-6x0-1 $\frac{1}{4}$ .
- 1 closet door 1-2x4-6x0-1 $\frac{1}{4}$ .
- 360 lineal feet main cornice.
- 40 lineal feet porch cornice.
- 290 lineal feet  $1\frac{1}{4}$ x4 $\frac{1}{2}$  inch corner casings.
- 145 lineal feet  $1\frac{1}{8}$  inch quarter round.
- 90 lineal feet  $1\frac{1}{4}$ x1 $\frac{1}{4}$  inch angle bead.
- 56 lineal feet belt across gables.
- 275 lineal feet water table.
- 200 feet 5-4x3 $\frac{1}{4}$  inch flooring.

4,000 feet 13-16x3¼ inch flooring.  
 3,500 square feet deadening felt.  
 5,600 feet 11-16x3¼ beaded ceiling.  
 500 lineal feet 2½ inch crown moulding.  
 350 lineal feet ⅞ inch quarter round.  
 4 porch columns.  
 3 half porch columns.  
 16 lineal feet top and bottom rail and balusters.  
 30 lineal feet sill casing.  
 30 lineal feet plate casing.  
 130 lineal feet 1¼x4 inch treads porch steps.  
 42 lineal feet ⅞x7½ inch risers porch steps.  
 2 pieces 2x12x16 carriages.  
 370 lineal feet wainscoting, cap and base.  
 140 lineal feet chalk trough and cap.  
 1 flag pole 14 feet long, 12 feet turned.  
 1 set "Wilson's" rolling partitions for opening 15 feet wide, 9 feet high, movable post for center.  
 4 teachers' platforms.  
 4 lunch closets.  
 7,500 laths.  
 20 barrels lime.  
 10 yards sand.  
 10 bushels hair.

## HARDWARE.

1 cylinder lock for front door.  
 3 pairs butts for front door.  
 Top and bottom bolts for front door.  
 1 pair butts for transom.  
 1 transom worker.  
 13 mortise knob locks.  
 19½ pairs butts.  
 13 pairs butts for transoms.  
 13 transom workers.  
 23 sash locks.  
 46 sash lifts.  
 23 pairs butts for transoms.  
 23 transom lifters.  
 20 dozen wardrobe hooks.  
 4 12x15 japanned iron registers for vent flues.  
 4 wire guards 12x16 for fresh air inlet.

BILL OF MATERIALS FOR FOUR-ROOM SCHOOL BUILDING.  
 PLAN No. 5.

15,200 brick.  
 17 barrels lime.  
 11 yards sand.

370 lineal feet 6x10 for sills and girders.  
 88 pieces 2x10x13 floor joists.  
 12 pieces 2x10x16 floor joists.  
 50 pieces 2x10x10 floor joists.  
 50 pieces 2x14x26.  
 26 pieces 2x14x12.  
 26 pieces 2x14x10.  
 6 pieces 2x8x12 porch joists.  
 325 lineal feet  $1\frac{1}{2}$ x3 inch joist bearer  
 375 lineal feet 1x4 inch bridging.  
 1,400 lineal feet  $\frac{7}{8}$ x2 inch grounds.  
 300 pieces 2x6x13 first-story studding.  
 600 lineal feet 2x6 plates.  
 300 pieces 2x6x14 second-story studding.  
 600 lineal feet 2x6 plates.  
 56 pieces 2x8x26 ceiling joists.  
 18 pieces 2x8x16 ceiling joists.  
 8 pieces 2x8x12 ceiling joists.  
 34 pieces  $1\frac{1}{2}$ x8x12 king posts.  
 34 pieces  $1\frac{1}{2}$ x6x18 struts.  
 6 pieces 2x6x16 lookouts.  
 76 pieces 2x6x22 rafters.  
 2 pieces 2x10x19 valley rafters.

#### MATERIALS FOR TRUSS OVER ROLLING PARTITIONS.

4 pieces 6x8x10 posts.  
 4 pieces 6x12x24.  
 2 pieces 6x12x12.  
 2 pieces 6x6x8.  
 2 pieces 4x4x10.  
 2 pieces 4x6x12.  
 6 1-inch rods 3 feet 10 inches long.  
 4  $\frac{5}{8}$ -inch bolts 1 foot 6 inches long.  
 4  $\frac{5}{8}$ -inch bolts 1 foot long.  
 4  $\frac{1}{2}$ x6-inch steel plates 16 inches long, bent and punched for bolts.  
 7,500 feet  $\frac{7}{8}$ -inch surfaced sheathing.  
 1,750 feet  $\frac{7}{8}$ x4 inch shingling strips.  
 22,000 shingles.  
 7,200 feet siding.  
 6,000 feet waterproof sheathing.  
 25 windows, 12 lights 12x18, transoms, 3 lights 12x18.  
 1 window same as above, bottom half paneled at stairway.  
 3 windows, 12 lights 12x18.  
 3 triple slat ventilators for gables.  
 1 pair front entrance doors 2-6x7-0x0-1 $\frac{3}{4}$  each, 18 inch transom glass.  
 4 doors 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.

10 doors 2-10x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.  
 1 door 2-8x7-0x0-1 $\frac{3}{4}$ , 18 inch transom glass.  
 1 door 2-6x6-0x0-1 $\frac{3}{4}$ .  
 310 lineal feet main cornice.  
 30 lineal feet hood.  
 350 lineal feet 1 $\frac{1}{4}$ x4 $\frac{1}{2}$  inch corner casings.  
 175 lineal feet 1 $\frac{1}{8}$  inch quarter round.  
 60 lineal feet 1 $\frac{1}{4}$ x1 $\frac{1}{4}$  angle bead.  
 180 lineal feet water table.  
 100 feet 5-4x3 $\frac{1}{4}$  inch flooring.  
 250 lineal feet 1 $\frac{1}{4}$ x4 inch treads for steps and floor for platform.  
 36 lineal feet  $\frac{7}{8}$ x7 $\frac{1}{2}$  risers for steps.  
 4,750 feet 13-16x3 $\frac{1}{4}$  inch flooring.  
 8,250 feet 11-16x3 $\frac{1}{4}$  inch beaded ceiling.  
 650 lineal feet 2 $\frac{1}{2}$ -inch crown moulding.  
 450 lineal feet  $\frac{7}{8}$  inch quarter round.  
 2 paneled pilasters for front entrance.  
 2 paneled brackets for front entrance.  
 330 lineal feet wainscoting, cap and base.  
 130 lineal feet chalk trough and cap.  
 1 stairway complete, including newels, rails and balusters.  
 1 flag pole 14 feet long, 12 feet turned.  
 2 sets rolling partitions for opening 20 feet 6 inches wide, 9 feet high.  
 4 teachers' platforms.  
 4 lunch closets.  
 10,000 laths.  
 26 barrels lime.  
 13 yards sand.  
 13 bushels hair.

## HARDWARE.

1 cylinder front door lock.  
 3 pairs butts.  
 Top and bottom bolts.  
 1 pair butts for transom.  
 1 transom worker.  
 16 mortise knob locks.  
 24 pairs butts.  
 16 pairs butts for transoms.  
 16 transom lifters.  
 29 sash locks.  
 58 sash lifts.  
 29 pairs butts for window transoms.  
 29 transom lifters.  
 20 dozen wardrobe hooks.  
 4 japanned iron registers for vent flues.  
 4 wire guards 12x16 for fresh air inlet.

BILL OF MATERIALS FOR SIX-ROOM SCHOOL BUILDING,  
PLAN No. 6.

25,400 brick.  
31 barrels lime.  
20 yards sand.  
500 lineal feet 6x10 sill and girders.  
88 pieces 2x10x14 floor joists.  
40 pieces 2x10x16 floor joists.  
8 pieces 2x10x10 floor joists.  
50 pieces 2x10x13 floor joists.  
52 pieces 2x14x27-6 second floor joists.  
26 pieces 2x14x22 second floor joists.  
38 pieces 2x14x12 second floor joists.  
450 lineal feet 1½x3 inch joist bearer.  
675 lineal feet 1x4 inch bridging.  
2,000 lineal feet 7⁄8x2 inch grounds.  
360 pieces 2x6x13 studding.  
340 pieces 2x6x14 studding.  
700 lineal feet 2x6 plates.  
36 pieces 2x8x30 ceiling joists.  
12 pieces 2x8x34 ceiling joists.  
26 pieces 2x8x12 ceiling joists.  
10 pieces 2x6x12 lookouts.  
70 pieces 2x6x19 rafters.  
36 pieces 2x6x21 rafters.  
14 pieces 2x6x12 rafters.  
2 pieces 2x10x28 hip rafters.  
6 pieces 2x10x24 hip and valley rafters.  
50 pieces 1½x8x12 king posts.  
50 pieces 1½x6x18 struts.

## MATERIALS FOR TRUSS OVER ROLLING PARTITION.

2 pieces 6x8x10 posts.  
2 pieces 6x12x27.  
1 piece 6x12x12.  
1 piece 6x6x8.  
1 piece 4x4x10.  
1 piece 4x6x12.  
3 1-inch rods 3 feet 10 inches long.  
2 5⁄8-inch bolts 1 foot 6 inches long.  
2 5⁄8-inch bolts 1 foot long.  
2 ½x6-inch steel plates 16 inches long, bent and punched for bolts.

## MATERIALS FOR TRUSSES ACROSS HALL AND OVER ENTRANCE.

4 pieces 6x8x18.  
2 pieces 4x6x12.



- 2 pieces 4x6x16.
- 4  $\frac{7}{8}$ -inch rods 4 feet long.
- 4  $\frac{5}{8}$ -inch bolts 1 foot long.
- 14,000 feet  $\frac{7}{8}$  inch surfaced sheathing.
- 2,550 feet  $\frac{7}{8}$ x4 inch shingling strips.
- 30,500 shingles.
- 8,000 feet siding.
- 6,500 feet waterproof sheathing.
- 4 triple windows for front, 12 lights 18x24 each opening, transoms
- 3 lights 12x18.
- 2 mullion windows for rear, 12 lights 18x24 each opening, transoms
- 3 lights 12x18.
- 15 windows, 12 lights 12x18, transoms, 3 lights 12x18.
- 1 window on stair-landing (see drawings).
- 1 window, 12 lights 10x16, transom, 3 lights 10x16.
- 1 triple window center second floor front (see drawings).
- 5 windows, 12 lights 12x18.
- 1 triple slat ventilator for front gables.
- 1 pair front entrance doors 2-6x7-0x0-1 $\frac{3}{4}$  each, 18 inch transom
- glass.
- 2 side-light windows, 8 lights 10x16 each.
- 6 inside doors 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom.
- 13 inside doors 2-10x7-0x0-1 $\frac{3}{4}$ , 18 inch transoms.
- 3 closet doors 2-6x7-0x0-1 $\frac{3}{4}$ .
- 1 outside single door 3-0x7-0x0-1 $\frac{3}{4}$ , 18 inch transom.
- 370 lineal feet cornice.
- 42 lineal feet hood cornice with dentils.
- 475 lineal feet 1 $\frac{1}{4}$ x4 $\frac{1}{2}$  inch corner casings.
- 240 lineal feet 1 $\frac{1}{8}$  inch quarter round.
- 175 lineal feet 1 $\frac{1}{4}$ x1 $\frac{1}{4}$  angle bead.
- 240 lineal feet water table.
- 150 feet 5-4x3 $\frac{1}{4}$  inch porch floor.
- 7,250 feet 13-16x3 $\frac{1}{4}$  inch flooring.
- 12,000 feet 11-16x3 $\frac{1}{4}$  inch beaded ceiling.
- 6,000 feet flooring felt.
- 900 lineal feet 2 $\frac{1}{2}$  inch crown moulding.
- 600 lineal feet  $\frac{7}{8}$  inch quarter round.
- 2 pilasters for front entrance.
- 1 paneled plate.
- 2 small brackets under same.
- 2 large brackets under hood.
- 150 lineal feet 1 $\frac{1}{4}$ x4 inch treads front steps.
- 50 lineal feet  $\frac{7}{8}$ x7 $\frac{1}{2}$  inch risers front steps.
- 2 pieces 2x12x12 carriages.
- 740 lineal feet wainscoting, cap and base.
- 200 lineal feet chalk trough and cap.
- 1 flag pole 14 feet long, 12 feet turned.

- 1 set "Wilson's" rolling partitions for opening 24 feet wide, 9 feet high, movable post.
- 6 teachers' platforms.
- 6 lunch closets.
- 14,250 laths.
- 38 barrels lime.
- 19 yards sand.
- 19 bushels hair.

#### HARDWARE.

- 1 cylinder lock for front doors.
- 3 pairs butts for same.
- Top and bottom bolts.
- 1 pair butts for transom.
- 1 transom worker.
- 23 mortise knob locks for inside doors.
- 34½ pairs butts for inside doors.
- 23 pairs butts for transoms.
- 23 transom lifters.
- 42 sash locks.
- 84 sash lifts.
- 32 pairs butts for transoms.
- 32 transom lifters.
- 30 dozen wardrobe hooks.
- 6 japanned iron registers for vent flues.
- 6 12x16 wire guards for fresh air inlets.

#### BILL OF MATERIAL FOR SCHOOL BUILDING. PLAN No. 6 A.

The quantities called for in the following bill of material are based on the dimensions and construction shown by the working drawings and details, and any departure from this construction will change the quantities required. Only sufficient material is included to complete the work in accordance with these plans. No allowance is made for scaffolding or other outside uses. In framing, long timbers will be framed first; no long timbers should be cut to make short lengths until long timbers are all framed; this will apply to sills, girders, joists, rafters, etc. In estimating quantities for brickwork, lots are considered level and buildings set at the elevation above grade line shown on drawings. If lots are not level and buildings are set higher above grade, more brick will be required.

- 13,600 brick.
- 16 barrels lime.
- 10 yards sand.
- 6 6-inch stovepipe thimbles.
- 460 lineal feet 6x10 sills and girders.
- 420 lineal feet 1½x3 joist bearer.

136 pieces 2x10x14 first-floor joists.  
 26 pieces 2x10x16 first-floor joists.  
 26 pieces 2x10x12 first-floor joists.  
 54 pieces 2½x14x26 second-floor joists.  
 26 pieces 2x14x12 second-story joists.  
 30 pieces 2x14x18 second-floor joists.  
 12 pieces 2x8x30 ceiling joists.  
 54 pieces 2x8x28 ceiling joists.  
 26 pieces 2x8x14 ceiling joists.  
 30 pieces 2x8x18 ceiling joists.  
 600 lineal feet 1x4 bridging.  
 3,000 lineal feet ⅞x1½ grounds.  
 465 pieces 2x6x14 first-story studding.  
 280 pieces 2x6x14 second-story studding.  
 1,500 lineal feet 2x6 wall plates.  
 2 pieces 2x10x34 hip rafters.  
 2 pieces 2x10x30 hip rafters.  
 2 pieces 2x10x22 hip rafters.  
 20 pieces 2x6x26 rafters.  
 4 pieces 2x6x24 rafters.  
 4 pieces 2x6x22 rafters.  
 36 pieces 2x6x20 rafters.  
 52 pieces 2x6x16 rafters.  
 12 pieces 1½x8x12 king posts.  
 12 pieces 1½x8x16 king posts.  
 24 pieces 1½x6x10 struts.  
 22 pieces 1½x6x14 struts.

MATERIALS FOR TRUSSES OVER AUDITORIUM TO CARRY ROLLING  
PARTITIONS WHEN INSTALLED.

2 pieces 5½x11½x28.  
 2 pieces 5½x7½x16.  
 2 pieces 5½x7½x12.  
 3 pieces 3½x5½x16.  
 Rods and plates for same (see details).  
 3,500 feet ⅞x4 shingling strips.  
 32,000 shingles.  
 12,500 feet ⅞ inch surfaced sheathing.  
 7,000 feet siding.  
 5,500 feet waterproof sheathing paper.  
 17 windows, 12 lights 12x18, 18 transom glass first floor.  
 3 windows, 12 lights 10x16, no transom first floor.  
 17 windows, 12 lights 12x18, 18 transom glass second floor.  
 2 outside double doors 2-6x7-0x1¾, 22 inch transom.  
 3 inside double doors 2-6x7-0x1¾, 18 inch transom.  
 1 inside double door 2-2x7-0x1¾, 18 inch transom.  
 11 single doors 2-10x7-0x1¾, 18 inch transom.

70 lineal feet each member one story cornice (see details).  
 50 lineal feet each member porch cornice (see details).  
 310 lineal feet each member main cornice (see details).  
 60 lineal feet each member tower cornice (see details).  
 400 lineal feet  $1\frac{1}{4} \times 4\frac{1}{2}$  corner casings.  
 200 lineal feet  $1\frac{1}{8}$  quarter round.  
 116 lineal feet  $1\frac{1}{4} \times 1\frac{1}{4}$  angle casing.  
 250 lineal feet water table.  
 225 feet  $1\frac{1}{4} \times 3\frac{1}{4}$  porch flooring.  
 6,500 feet  $13-16 \times 3\frac{1}{4}$  flooring.  
 5,000 feet flooring felt.  
 9,250 feet  $11-16 \times 3\frac{1}{4}$  beaded ceiling.  
 900 lineal feet  $2\frac{1}{2}$  crown moulding.  
 450 lineal feet  $\frac{3}{4}$  quarter round.  
 35 lineal feet porch plate and sill casing (see details).  
 4 square columns.  
 20 lineal feet top and bottom rail and balusters.  
 250 lineal feet  $1\frac{1}{4} \times 4$  treads for front porch.  
 75 lineal feet  $\frac{7}{8} \times 7\frac{1}{2}$  risers for front porch.  
 3 pieces  $2 \times 12 \times 16$  for carriages.  
 750 lineal feet wainscoting, cut 3-0 high with cap and base.  
 160 lineal feet chalk trough and cap.  
 1 turned flag pole.  
 3 teachers' platforms.  
 1 stairway complete with newels, handrails, balusters, etc.  
 14,000 laths.  
 38 barrels of lime.  
 19 yards sand.  
 19 bushels hair.

## HARDWARE.

2 cylinder locks for outside double doors.  
 6 pairs butts for same.  
 2 top and bottom bolts.  
 2 pairs butts for transoms.  
 2 transom workers.  
 2 cylinder vestibule latches for vestibule doors.  
 6 pairs butts.  
 2 top and bottom bolts.  
 2 pairs butts for transoms.  
 2 transom workers.  
 11 mortise knob locks for inside doors.  
 $16\frac{1}{2}$  pairs butts.  
 11 pair butts for transoms.  
 11 transom lifters.  
 37 sash locks.  
 64 hook sash lifts.  
 34 pairs butts for transoms.

- 34 transom lifters.
- 15 dozen japanned wardrobe hooks.
- 4 japanned iron registers for vent flues.
- 4 wire guards for fresh air.

#### BILL OF MATERIALS, DORMITORY FOR GIRLS.

See elsewhere in pamphlet for explanation of quantities, etc. See specifications for school plans for grade of materials and workmanship, which will govern for dormitory plans where applicable.

Brick for piers, 4-inch curtain walls between piers, and flues.

22,000 brick.

22 barrels lime.

14 yards sand.

525 lineal feet 6x10 sills and girders.

96 pieces 2x10x16 floor joists.

48 pieces 2x10x9 floor joists.

86 pieces 2x10x12 floor joists.

90 lineal feet 4x8 porch sills and girder.

24 pieces 2x8x16 porch joists.

10 pieces 2x8x12 porch joists.

500 lineal feet 1½x3 joist bearer.

1,050 lineal feet 1x4 bridging.

96 pieces 2x10x17 second-story joists.

50 pieces 2x10x9 second-story joists.

96 pieces 2x6x17 ceiling joists.

50 pieces 2x6x9 ceiling joists.

86 pieces 2x6x12 ceiling joists.

210 pieces 2x6x22 outside studding.

600 pieces 2x4x12 studding.

1,200 lineal feet 2x4 wall plates.

70 pieces 2x6x24 rafters.

4 pieces 2x8x32 hip rafters.

50 pieces 2x6x18 rafters.

4 pieces 2x6x22 hip rafters.

30 pieces 2x4x16 rafters.

30 pieces 2x6x12 porch rafters.

30 pieces 1x8x12 king posts.

60 1x6x10 struts, main roof.

#### MATERIALS FOR TRUSSES IN PARTITIONS OVER DINING-ROOM.

12 pieces 2x10x26.

4 pieces 4x6x12.

2 pieces 4x6x10.

4 1¼-inch rods 12 feet long, upset ends standard threads, nuts and washers, 8 wrought-iron straps for connections with bolts (see detail drawings for truss).

- 12,500 feet  $\frac{7}{8}$  inch surfaced sheathing for side walls and floors.
- 4,000 feet 1x4 shingling strips.
- 2,500 feet  $\frac{7}{8}$  inch ceiling for porch sheathing and overhang of main cornice.
- 42,000 shingles.
- 7,450 feet siding.
- 6,200 feet building paper.
- 13 windows, 4 lights 16x36.
- 3 mullion windows, 4 lights, each 14x36.
- 1 mullion windows, 4 lights, each 14x32.
- 3 windows, 4 lights 14x32.
- 1 front entrance doors 2-6x7-6x1 $\frac{3}{4}$  each, transom and side lights.
- 1 dining-room entrance doors 2-6x7-6x1 $\frac{3}{4}$  transom.
- 1 rear hall entrance door 2-6x7-6x1 $\frac{3}{4}$  transom.
- 2 outside doors 3x7x1 $\frac{3}{4}$ .
- 14 windows, 4 lights 16x32.
- 2 mullion windows, 4 lights, each 14x32.
- 1 front dormer mullion window.
- 4 small dormer windows.
- 1 double entrance doors to dining-room 2-6x6-10x1 $\frac{3}{8}$ .
- 24 inch transom, 5 lights.
- 1 double entrance doors to hall 2-6x6-10x1 $\frac{3}{8}$ , 24 inch transom.
- 4 interior doors 2-10x6-10x1 $\frac{3}{8}$ , 24 inch transom.
- 6 interior doors 2-10x6-10x1 $\frac{3}{8}$ , no transom.
- 9 interior doors (second floor), 2-10x6-10x1 $\frac{3}{8}$ , 16 inch transom.
- 275 lineal feet 1 $\frac{1}{4}$ x4 $\frac{1}{2}$  corner casings.
- 40 lineal feet 1 $\frac{1}{4}$ x1 $\frac{1}{4}$  angle casings.
- 950 feet 5-4x3 $\frac{1}{4}$  inch flooring.
- 8,000 feet 13-16x3 $\frac{1}{4}$  inch flooring.
- 6,500 feet flooring felt.
- 27,500 feet 9-16x3 $\frac{1}{4}$  inch beaded ceiling for side walls and ceiling throughout.
- 3,750 lineal feet  $\frac{3}{4}$  inch quarter round.
- Materials for one flight main stairs (see details).
- 76 lineal feet sill casing porches.
- 76 lineal feet plate casing porches.
- 40 lineal feet railing and balusters.
- 2 flights porch steps.
- 4 stone pier caps.
- 10 boxed columns.
- 3 cylinder mortise door locks for outside double doors, a pair top and bottom bolts, 6 pair butts, 8 sets door hinges for double swing doors.
- 17 mortise knob locks.
- 17 pair butts.



13 transom workers.  
 13 pairs transom butts.  
 42 sash locks.  
 84 hook lifts.

### BILL OF MATERIALS FOR TWO-ROOM DORMITORY FOR BOYS.

See elsewhere in pamphlet for explanation of quantities, etc.

Brick for piers and chimney.

5,500 brick.

6 barrels lime.

4 yards sand.

2  $\frac{3}{8}$ x2 $\frac{1}{2}$ -inch arch bars.

105 lineal feet 5x10 inch sills, main.

40 lineal feet 4x8 inch porch sills.

28 pieces 2x10x16 floor joists.

10 pieces 2x8x14 porch joists.

65 lineal feet 1 $\frac{1}{2}$ x3 joist bearer.

75 lineal feet 1x4 bridging.

118 pieces 2x4x10 studding.

225 lineal feet 2x4 wall plates.

26 pieces 2x6x16 ceiling joists.

16 pieces 2x4x16 rafters, extending over porch.

36 pieces 2x4x12 rafters.

4 pieces 3x4x12 for brackets.

1,500 feet  $\frac{7}{8}$  inch surfaced sheathing for subfloor and side wall sheathing.

750 feet  $\frac{7}{8}$ x4 shingling strips.

300 feet  $\frac{7}{8}$  inch ceiling for overhang of cornice.

6,750 shingles.

1,250 feet siding.

1,000 feet building paper.

4 windows, 4 lights 16x32.

2 outside doors 3x7x1 $\frac{3}{4}$  12 inch transom.

2 inside doors 2-10x6-10x1 $\frac{3}{8}$ .

8 pieces 1 $\frac{1}{4}$ x4 $\frac{1}{2}$  inch corner casings.

80 lineal feet quarter round.

250 lineal feet 5-4x3 $\frac{1}{4}$  inch porch flooring.

675 feet 13-16x3 $\frac{1}{4}$  inch flooring.

2,500 feet 13-16x3 $\frac{1}{4}$  inch beaded ceiling for side walls and ceilings.

475 lineal feet  $\frac{3}{4}$  inch quarter round for angles.

4 mortise knob locks.

4 pairs butts for doors.

2 pairs butts for transoms.

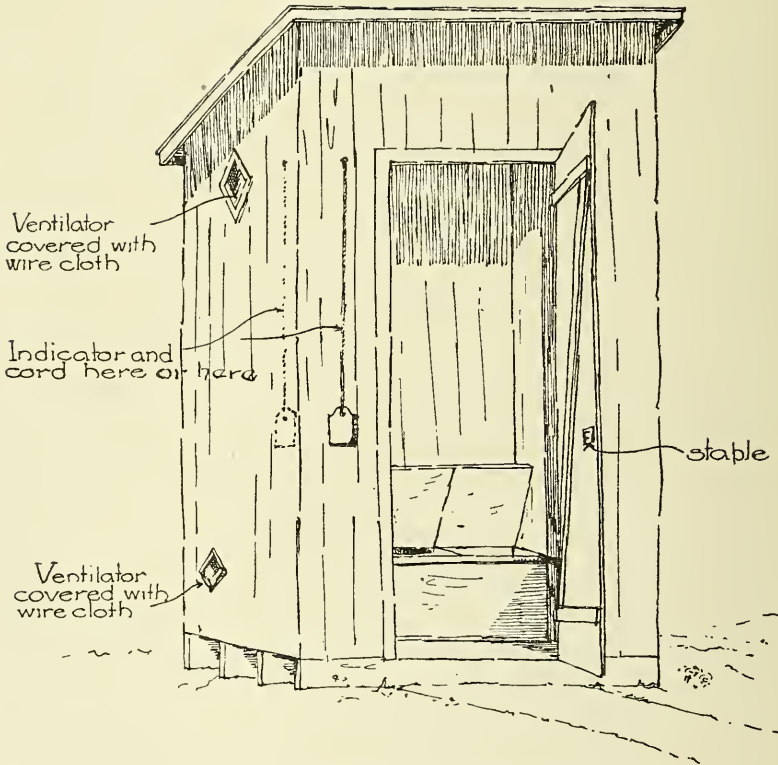
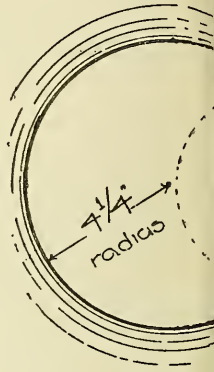
2 transom workers.

4 sash locks.

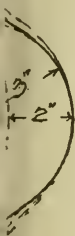
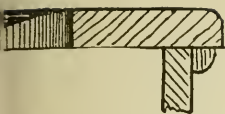
8 hook lifts.



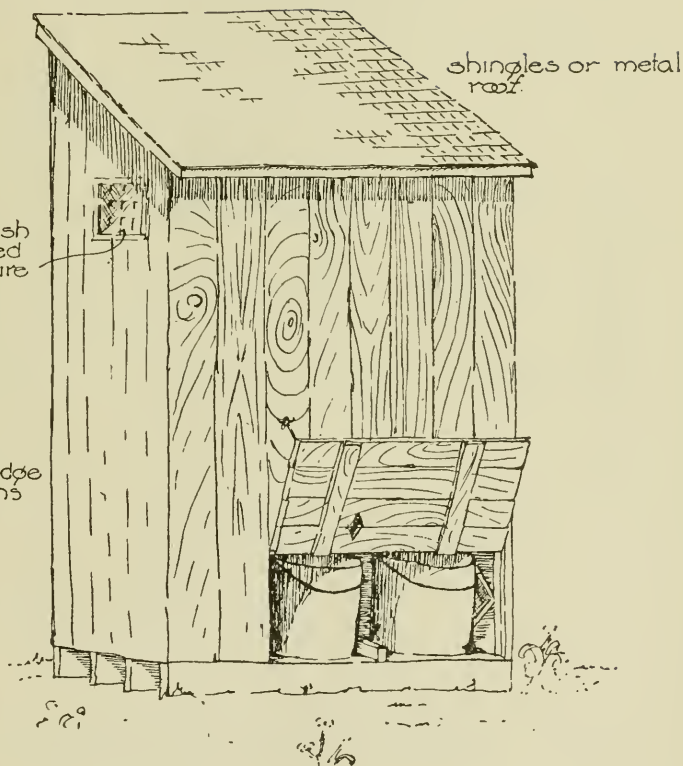
Sect:



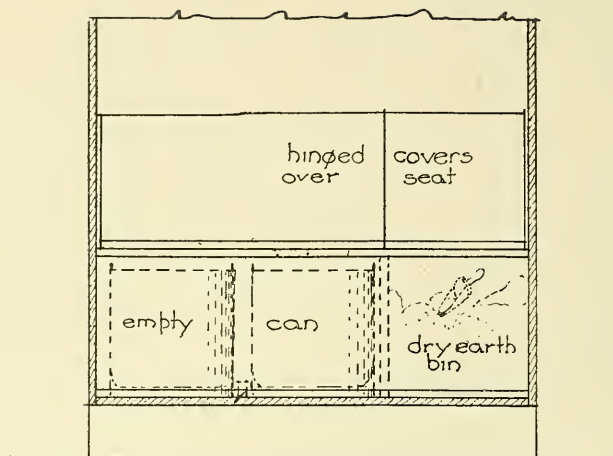
View of front showing seat with covers turned back



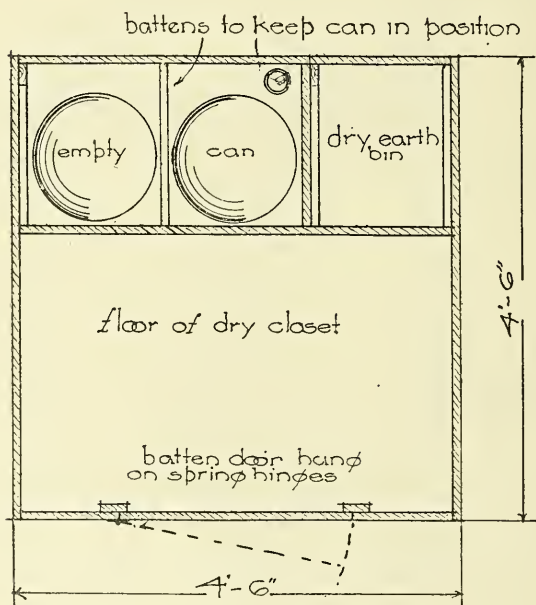
Plan of hole showing  
method of laying out



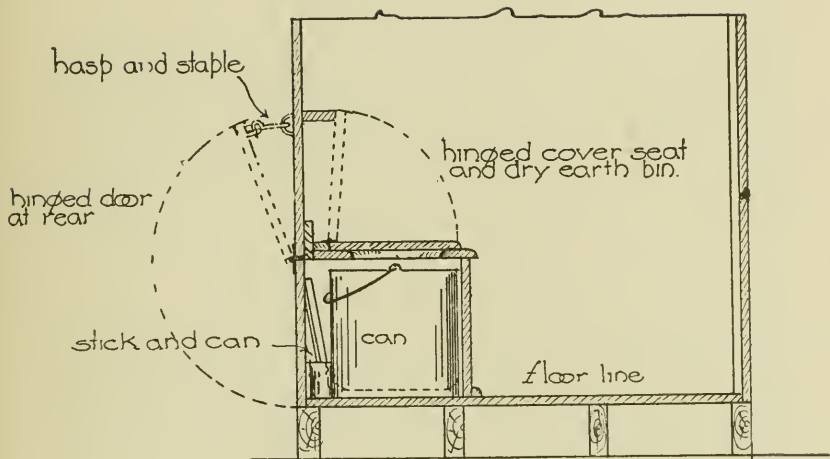
View of rear showing  
hinged door and position  
of cans



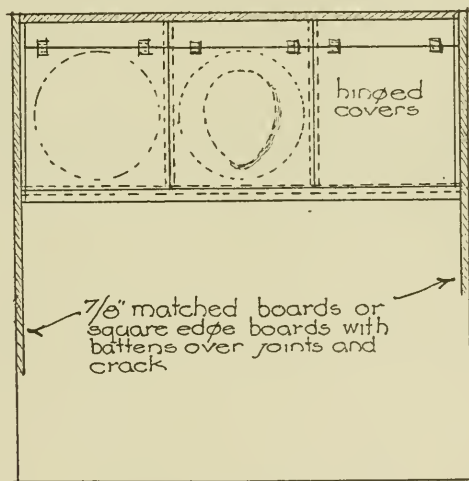
Elevation of seat showing  
cans and earth bin



Floor plan of dry closet showing  
position of cans and earth bin



Section through seat showing position of can, hinged cover and door at rear.



Plan of seat showing covers

## THE SANITARY PRIVY.

All plans for new schoolhouses must include plans for sanitary privies, as contained in this pamphlet and the construction of these be included in the building contract before approval by the State Superintendent of Public Instruction, under section 4124 of the Public School Law.

The following is taken from the *State Board of Health Bulletin* as the highest authority upon this subject:

The requirements of a proper privy are, first, as the name suggests, that it should insure privacy and comfort to those who use it; second, that it should prevent pollution of the soil; third, that it should prevent the possibility of flies, insects, chickens, dogs, or other animals conveying infection to human beings.

The first requirement is essential to health. If it is disagreeable or distasteful in any way, many people are prevented from using the privy as regularly and frequently as they should do, and their health suffers.

The second requirement is necessary; for, if the contents of the privy are disposed of in such a way as to come in contact with the person of human beings, either by their treading on them or touching them with other parts of the body, disease is likely to be spread. Careless disposal of the excreta also contaminates strawberries, lettuce, celery, radishes and other vegetables eaten raw; and may also contaminate the hands of those who prepare other vegetables for the table, and thus convey disease. Of course, when the excreta are allowed to get to the water supply, they also contaminate the water for drinking purposes; and this is an extensive means of spreading typhoid fever especially.

The third requirement is the most important, and the one less frequently guarded against. Animals will spread the excreta around where they would not otherwise come in contact with the person of human beings, and flies always make a practice of flying from any sort of filth out of doors between meals to the kitchen and table at meal times of houses which are not carefully screened.

## THE NECESSARY POINTS IN CONSTRUCTING AND USING PRIVIES.

First. The privy should not be offensive. If it is, it will be placed at a long distance from the house.

Second. The creation of some other more pleasant or harmless odor has no effect whatever in destroying the disease-producing qualities of the contents of the privy.



Third. *Under ordinary circumstances* it is utterly impossible to disinfect the excreta thoroughly.\* The disinfectant penetrates but a slight distance into the solid matter. Lime does not prevent infection. The flies that gave our soldiers typhoid fever at Chickamauga showed on their feet lime that had been used for disinfecting, but they brought, at the same time, the disease germs that proved so fatal.

Fourth. The contents of the privy should be screened absolutely from all possible contact with flies, or other living creatures which might carry the disease.

Fifth. The privy box, or space used for excreta, should be ventilated.

Sixth. The privy itself should be fly-proof and ventilated.

Seventh. The privy should be so arranged that one would have to go as short a distance as possible from the house and would not be unnecessarily exposed to observation.

Eighth. The privy should be easy to clean and, if possible, its management should be largely in the power of any member of the household.

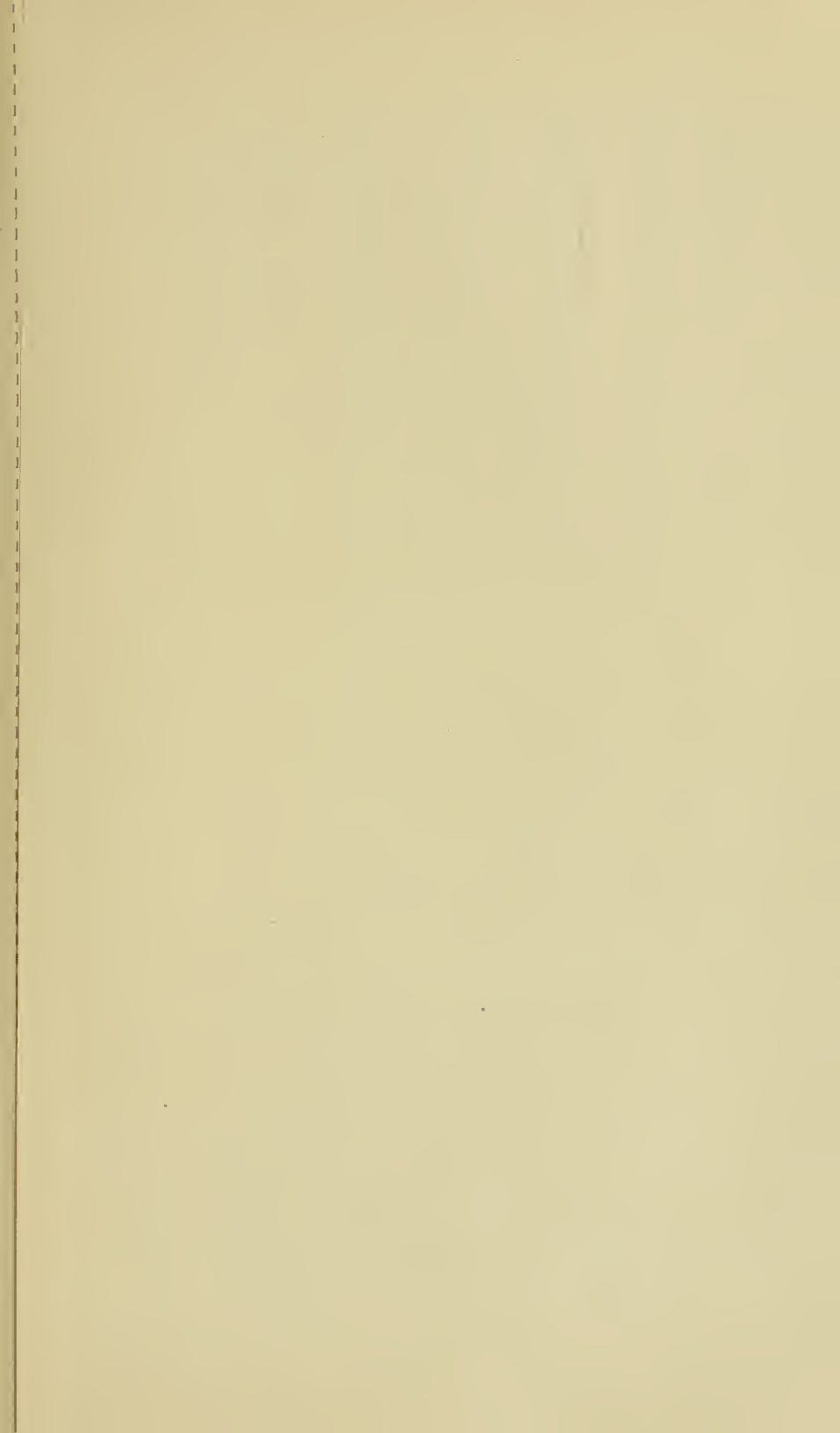
#### THE NORTH CAROLINA STANDARD PRIVY.

Under the direction of the Secretary of the State Board of Health, plans and specifications are being published herewith for the construction of a proper sanitary privy, embodying the points necessary to satisfy the above requirements. Every one is advised to have a privy of this sort. There is no excuse for not using this plan when building a new privy. All who can afford to do so should build a privy of this kind in the place of any unsatisfactory privy now existing.

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\*Where the requirements of complete disinfection are serious, as cholera or typhoid, it is possible to accomplish this end under the direction of the physician. A considerable amount of disinfecting fluid must then be used, and sufficient time allowed to insure complete disintegration of solid matter. This necessitates a bad odor to be endured for the whole of this time.







THIS AGREEMENT, made the ..... day of ....., in the year one thousand nine hundred and ..... by and between .....

..... party of the first part (hereinafter designated the contractor), and the County Board of Education of ..... County, N. C., party of the second part (hereinafter designated the owners),  
WITNESSETH, that the contractor, in consideration of the agreements herein made by the owners, agrees with said owners as follows:

Article I. The contractor shall and will provide all the materials, and perform all the work for the completion of a ..... room frame school building to be erected in the .....

School District of ..... County, N. C., in accordance with plan No. .... and as shown on the drawings, and described in the specifications prepared for the State Superintendent of Public Instruction by Barrett & Thomson, Architects.

Article II. It is understood and agreed by and between the parties hereto, that the work included in this contract is to be done under the direction of the County Board of Education, and that the building shall be inspected, received, and approved by the County Superintendent of Public Instruction before final payment, as required by Section 4124 of the Public School Law.

Article III. No alterations shall be made in the work except upon written order of the County Board of Education, the amount to be paid by the owners, or allowed by the contractor by virtue of such alterations to be stated in said order.

Article IV. The contractor shall complete the several portions and the whole of the work comprehended in this agreement on or before the ..... day of ..... 191 .....

Article V. It is mutually agreed between the parties hereto that the sum to be paid by the owners to the contractor for said work and materials shall be and that such sum shall be paid by the owners to the contractor in current funds as follows: In monthly payments, no payment except the final one to exceed eighty per cent of the labor and materials in the building at the time payment is made. The final payment, including the twenty per cent previously withheld shall be payable within ten days after the completion and acceptance of the work included in this contract. Before the final payment is made the contractor will furnish to the owners an itemized statement in writing, duly subscribed and sworn to by the contractor, of the amount, if any, owing to any laborer, mechanic or artisan employed by the contractor on the work, or to any person for materials furnished; and upon delivery to the owners or their agent of the itemized statement aforesaid, the owners shall have the right to retain out of any payment then due or thereafter to become due to the contractor an amount sufficient to completely indemnify them against any such claim or claims.

Article VI. It is further mutually agreed between the parties hereto that no payment made under this contract except the final payment shall be conclusive evidence of the performance of this contract, either wholly or in part, and that no payment shall be construed as an acceptance of defective work or improper materials.

Article VII. In case the owner and contractor fail to agree in relation to matters referred to in this contract, then the matter shall be referred to a board of arbitration to consist of one person selected by the owner and one person selected by the contractor, these two to select a third. The decision of any two of this board shall be final and binding on both parties hereto. Each party hereto shall pay one-half of the expense of such reference.

The said parties, for themselves, their heirs, successors, administrators and assigns, do hereby agree to the full performance of the covenants herein contained. In witness whereof, the parties to these presents have hereunto set their hands and seals, the day and year first above written.

(Seal).

In the presence of .....

(Seal).

(Seal).

Chairman County Board of Education.









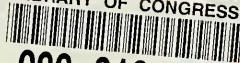








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